



Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments

Volume No.: 39

**Subpart NN—Suppliers of Natural
Gas and Natural Gas Liquids**

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Subpart NN—Suppliers of Natural Gas and Natural Gas Liquids

**U. S. Environmental Protection Agency
Office of Atmosphere Programs
Climate Change Division
Washington, D.C.**

FOREWORD

This document provides EPA's responses to public comments on EPA's Proposed Mandatory Greenhouse Gas Reporting Rule. EPA published a Notice of Proposed Rulemaking in the Federal Register on April 10, 2009 (74 FR 16448). EPA received comments on this proposed rule via mail, e-mail, facsimile, and at two public hearings held in Washington, DC and Sacramento, California in April 2009. Copies of all comments submitted are available at the EPA Docket Center Public Reading Room. Comments letters and transcripts of the public hearings are also available electronically through <http://www.regulations.gov> by searching Docket ID *EPA-HQ-OAR-2008-0508*.

Due to the size and scope of this rulemaking, EPA prepared this document in multiple volumes, with each volume focusing on a different broad subject area of the rule. This volume of the document provides EPA's responses to significant public comments received for 40 CFR Part 98, Subpart NN—Suppliers of Natural Gas and Natural Gas Liquids.

Each volume provides the verbatim text of comments extracted from the original letter or public hearing transcript. For each comment, the name and affiliation of the commenter, the document control number (DCN) assigned to the comment letter, and the number of the comment excerpt is provided. In some cases the same comment excerpt was submitted by two or more commenters either by submittal of a form letter prepared by an organization or by the commenter incorporating by reference the comments in another comment letter. Rather than repeat these comment excerpts for each commenter, EPA has listed the comment excerpt only once and provided a list of all the commenters who submitted the same form letter or otherwise incorporated the comments by reference in table(s) at the end of each volume (as appropriate).

EPA's responses to comments are generally provided immediately following each comment excerpt. However, in instances where several commenters raised similar or related issues, EPA has grouped these comments together and provided a single response after the first comment excerpt in the group and referenced this response in the other comment excerpts. In some cases, EPA provided responses to specific comments or groups of similar comments in the preamble to the final rulemaking. Rather than repeating those responses in this document, EPA has referenced the preamble.

While every effort was made to include significant comments related to 40 CFR Part 98, Subpart NN—Suppliers of Natural Gas and Natural Gas Liquids in this volume, some comments inevitably overlap multiple subject areas. For comments that overlapped two or more subject areas, EPA assigned the comment to a single subject category based on an assessment of the principle subject of the comment. For this reason, EPA encourages the public to read the other volumes of this document with subject areas that may be relevant to 40 CFR Part 98, Subpart NN—Suppliers of Natural Gas and Natural Gas Liquids.

The primary contact regarding questions or comments on this document is:

Carole Cook (202) 343-9263

U.S. Environmental Protection Agency
Office of Atmospheric Programs
Climate Change Division
Mail Code 6207-J
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

ghgreportingrule@epa.gov

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SUBPART NN. — SUPPLIERS OF NATURAL GAS AND NATURAL GAS LIQUIDS

1. DEFINITION OF SOURCE CATEGORY

Commenter Name: See Table 3

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0679.1

Comment Excerpt Number: 16

Comment: API suggests that a reporting threshold equal to the volume of odorized propane and/or butane which would yield 25,000 metric tons of emissions if fully combusted be included in the rule to exclude small facilities.

Response: Please see Preamble section III.NN.3 for a response to collecting data on odorized propane under the heading *Definition of Source Category*.

For the proposed rule, EPA considered a reporting threshold for Subpart NN of 25,000 metric tons. EPA concludes that, given the scope of the NGL market, the size of GHG emissions from NGLs, and the importance of NGLs to the economy, it is necessary for our accounting to be as comprehensive as possible. We seek as full an understanding of GHG emissions from NGLs as possible. Furthermore, EPA concluded that all NGL processors / fractionators are already required to report product volumes to EIA. EPA applied the same rationale to the final rule and did not establish a threshold in Subpart NN

Commenter Name: Kathleen M. Sgamma

Commenter Affiliation: Independent Petroleum Association of Mountain States (IPAMS)

Document Control Number: EPA-HQ-OAR-2008-0508-0521.1

Comment Excerpt Number: 35

Comment: The proposed rule states: “(a) Natural gas processing plants must report the CO₂ emissions that would result from the complete combustion or oxidization of the annual quantity of propane, butane, ethane, isobutene and bulk NGLs sold or delivered for use off site.” (p. 16720) EPA’s requirements for reporting natural gas liquids contained in Subparts MM and NN will result in duplicative counting of natural gas liquids and reporting of natural gas liquids which are used for chemical feedstock and do not result in greenhouse gas emissions from their combustion.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Kathleen M. Sgamma

Commenter Affiliation: Independent Petroleum Association of Mountain States (IPAMS)

Document Control Number: EPA-HQ-OAR-2008-0508-0521.1

Comment Excerpt Number: 31

Comment: Subpart NN fails to acknowledge that gas processing plants are not operated identically to refineries. Most gas processing plants do not own the gas they process or the

natural gas liquids produced at the facility. Contracts between gas processors and gas owners often disallow increased compliance costs to be passed from the processor to the owner of the produced natural gas liquids. Imposing additional compliance costs on the processors could create an unfair and crippling financial burden on the industry. IPAMS opposes the proposed registry requirements imposed upon gas processing plants with respect to natural gas liquids.

Response: Please see Section III.NN.3 of the Preamble for a response to covering gas processing plants in Subpart NN.

EPA seeks data that is already being reported to EIA and hence the additional burden is anticipated to be minimal. See the response to comment EPA-HQ-OAR-2008-0508-0460.1, excerpt 42 for justification of requiring reporting of data that is already reported to EIA.

Commenter: Name: Kim Dang

Commenter Affiliation: Kinder Morgan Energy Partners, L.P.

Document Control Number: EPA-HQ-OAR-2008-0508-0370.1

Comment Excerpt Number: 36

Comment: Kinder Morgan also understands that the Proposed Rule would require domestic natural gas processing facilities to report CO₂ emissions that would result from complete combustion of all NGLs produced at those facilities. In addition, importers of petroleum products would be required to report CO₂ emissions that would result from complete combustion of all NGLs introduced to the United States. However, as EPA recognizes in its TSD for Natural Gas Suppliers, an overwhelming proportion of NGLs produced or imported in the United States are not used as fuels – indeed, data from the American Petroleum Institute indicates that from 2000 to 2007, between 69.2% and 75.3% of all NGLs sold each year were used for non-fuel purposes.⁵¹ As EPA also recognizes, processors are usually not in a position to know the ultimate use or disposition of the NGLs they supply. The same is generally true of importers. Given these facts, Kinder Morgan urges EPA to reconsider the “upstream” reporting approach it has adopted for NGLs, and instead place the reporting requirement on major entities which purchase or distribute NGLs for known, combustive end-uses. Fractionators are the most appropriate domestic reporting entity for this purpose, since fractionators often know the end-use associated with their products. [Footnote: For example, ethane produced by fractionators is usually delivered as an input for the production of plastics, where it does not result in GHG emissions to the atmosphere.] Such an approach would provide EPA with a more accurate understanding of the contribution that NGLs make to nationwide GHG emissions. These combustion NGLs would likely also be reported by the combustor.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: See Table 4

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0412.1

Comment Excerpt Number: 34

Comment: Subpart NN fails to acknowledge that gas processing plants are not operated like refineries. Specifically, most gas processing companies do not own the gas they process or the NGLs that are produced at their gas plants. Under the terms of the contracts maintained between gas processors and gas owners, increased compliance costs may not be able to be passed on from

the processor to the owner of the resulting NGLs. Imposing additional compliance costs on the gas processors could create an unfair and potentially crippling financial burden on this industry, possibly reducing the viability of independent processors. Therefore, based upon this unique operational difference between gas processing facilities and refineries and in the interest of avoiding unnecessary double-counting of the same molecules, GPA opposes the proposed inventory requirements imposed upon gas processing plants with respect to NGLs. As an alternative to EPA's proposal, GPA suggests that EPA revise the reporting requirement to reflect the fraction of NGL production destined to be utilized as fuel and that will result in CO₂ emissions. During fractionation, Y-grade mixtures are distilled into five NGL purity products: ethane, butane, iso-butane, natural gasoline, and propane. Ethane's primary use is nonemissive. Butane, iso-butane and natural gasoline can either be used as petrochemical feedstock (a non-emissive use) or blended in petroleum-based liquid fuels. Thus, the only NGL fraction that is combusted as fuel is comprised almost exclusively of propane. This propane fraction is placed into commerce for residential, agricultural, commercial and alternative motor vehicle fuel use, and the law requires propane products to be odorized if used for these purposes. Therefore, GPA proposes that EPA impose a requirement that the party with legal title to the propane fraction at time of odorization report the GHG emissions to EPA because the propane fraction is what is ultimately used for fuel and results in CO₂ emissions. Placing the reporting obligation on the parties with legal title to these propane fractions at the time of odorization will impose a minimal burden on these entities because they already track and report the odorization of propane products under accounting processes established under the Propane Education and Research Act of 1996. Thus, GPA's proposed alternative would improve the accuracy of the inventory by accounting for the actual CO₂ emissions from the combustion of propane, while reducing the burden imposed on the natural gas processing industry.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment. EPA seeks data that is already being reported to EIA and hence the additional burden is anticipated to be minimal. See the response to comment EPA-HQ-OAR-2008-0508-0460.1, excerpt 42 for a response to using existing Federal government reporting databases.

EPA considered the commenter's proposal that EPA impose a reporting requirement on the party with legal title to the odorized propane rather than on the facility owner or operation. EPA concluded that reporting by the facility owner or operator is the most straightforward approach since multiple product owners may be sending their products through a fractionation facility. EPA identified one point in the supply chain that all products go through – fractionators – so that EPA could collect a complete data snapshot of all NGL supply.

Commenter Name: Bill Grygar

Commenter Affiliation: Anadarko Petroleum Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0459.1

Comment Excerpt Number: 25

Comment: Subpart NN fails to acknowledge that gas processing plants are not operated like refineries. Specifically, most gas processing plants do not own the gas they process or the NGLs that are produced at the facility. Under the terms of the contracts maintained between gas processors and gas owners, increased compliance costs may not be able to be passed on from the processor to the owner of the resulting NGLs. Imposing additional compliance costs on the gas processors could create an unfair and potentially crippling financial burden on this industry, possibly reducing the viability of independent processors.

Response: Please see response to comment directly above, comment EPA-HQ-OAR-2008-0508-0412.1, excerpt 34.

Commenter Name: Thomas M. Kiley
Commenter Affiliation: Northeast Gas Association (NGA)
Document Control Number: EPA-HQ-OAR-2008-0508-0558.1
Comment Excerpt Number: 7

Comment: We agree with AGA that natural gas utilities should not be required to report for individual customers. For an LDC to track and verify equipment usage and emissions factors at customer facilities would be highly burdensome, time-consuming, and not appropriate.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Kathleen M. Sgamma
Commenter Affiliation: Independent Petroleum Association of Mountain States (IPAMS)
Document Control Number: EPA-HQ-OAR-2008-0508-0521.1
Comment Excerpt Number: 32

Comment: IPAMS suggests that EPA revise the reporting requirement to reflect only the fraction of natural gas liquid production that is destined to be fuel and that will result in CO₂ emissions.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Mary J. Doyle
Commenter Affiliation: BG North America, LLC (BG)
Document Control Number: EPA-HQ-OAR-2008-0508-0714.1
Comment Excerpt Number: 13

Comment: The Agency is requesting comment on the inclusion of LDCs and processing plants, and the exclusion of other parts of the natural gas supply and distribution chain. BG supports the proposed rule as drafted to the extent it excludes other parts of the natural gas chain. As EPA points out, all natural gas imported into the US and delivered via the pipeline network is either delivered to LDCs or high volume customers, all of whom would be subject to the reporting requirements. The highly interconnected nature of the US pipeline grid with the thousands of receipt and delivery points would most likely result in numerous double-counting errors as EPA acknowledges.

Response: EPA appreciates and agrees with this comment.

Commenter Name: Jeff A. Myrom
Commenter Affiliation: MidAmerican Energy Holdings Company
Document Control Number: EPA-HQ-OAR-2008-0508-0581.1
Comment Excerpt Number: 53

Comment: MidAmerican submits that given the straightforward and logical reporting procedures for LDCs, compared to the procedures for interstate natural gas pipelines, the inclusion of all LDCs as reporters is reasonable.

Response: EPA appreciates and agrees with this comment.

Commenter Name: Dan F. Hunter

Commenter Affiliation: ConocoPhillips Company

Document Control Number: EPA-HQ-OAR-2008-0508-0515.1

Comment Excerpt Number: 66

Comment: At 74 FR 16575 (3rd column) and 16576 (1st column), regarding Subpart NN, EPA states that they "considered but decided not to propose including production wells, producing pipeline quality natural gas (i.e., not needing significant processing) due to the large number of potential facilities affected." In the first column of 74 FR 16575, it states "This subpart would require reporting by facilities and companies that introduce or supply natural gas and NGLs into the economy (e.g., LDCs)." These statements together can be confusing for our Beluga River operations. This field produces pipeline quality natural gas without significant processing (i.e., only small dehydrators are employed) but does route a portion of the gas directly to a large collocated utility where it is burned for production of electricity. Given that the field is intended for exclusion from Subpart NN coverage, we are inclined to allow this to over-rule any confusion resulting from the "into the economy" language. If we are incorrect in this reading, we ask EPA to clarify the rule in order to address this.

Response: Under Subpart NN of the final rule, only facilities that meet the definition of fractionator and natural gas local distribution companies are required to report. Given the information provided in the comment (i.e. that the Beluga River operation is not a fractionator or a natural gas LDC), it appears that the Beluga River operation would not be required to report under Subpart NN.

Commenter Name: Randy Armstrong

Commenter Affiliation: Shell Oil Company

Document Control Number: EPA-HQ-OAR-2008-0508-0651.1

Comment Excerpt Number: 10

Comment: 8. §98.400(a) (74 FR 16720) Subpart NN applies in part to natural gas processing plants. In §98.400(a), natural gas processing plants are defined as installations designed to separate and recover natural gas liquids (NGLs) or other gases and liquids from a stream of produced natural gases through the processes of condensation, absorption, adsorption, refrigeration, or other methods. The important part of this definition as it applies to subpart NN is that the plant separates and recovers NGLs. The definition in subpart NN differs from the definition of natural gas processing facilities in subpart A at §98.6. The subpart A definition is a broader definition in that it also includes operations engaged in the removal of CO₂, sulfur compounds, nitrogen, helium, water, and other contaminants. Further, the definition of natural gas liquids in subpart A at §98.6 states that for the purposes of subpart NN only, natural gas liquids does not include condensate. EPA should clarify that the definition of natural gas

processing facilities subject to subpart W, which refer to the definition in subpart A, and subpart NN is different in that subpart NN only applies to facilities that separate NGLs from natural gas and does not apply to facilities that dehydrate natural gas.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Curtis J. Winner

Commenter Affiliation: New Mexico Gas Company (NMGC)

Document Control Number: EPA-HQ-OAR-2008-0508-0585

Comment Excerpt Number: 15

Comment: In the Subpart NN preamble (2), EPA is requesting comments on requiring all LDCs to report annual volume of gas delivered to end users. NMGC agrees with the proposed regulation that all LDCs must report. If some LDCs are not required to report it is biased against larger LDCs. All LDCs should be required to report GHG emissions from the sale of natural gas.

Response: EPA appreciates this comment.

Commenter Name: See Table 1

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0480.1

Comment Excerpt Number: 7

Comment: INGAA agrees that natural gas upstream emissions, that is, emissions resulting from natural gas consumption, should be reported by local distribution companies. EPA correctly concluded, it would not be appropriate to place this reporting burden on interstate pipelines networks because their systems are too interconnected and complex.

Response: EPA appreciates and agrees with this comment.

Commenter Name: Patrick J. Nugent

Commenter Affiliation: Texas Pipeline Association (TPA)

Document Control Number: EPA-HQ-OAR-2008-0508-0460.1

Comment Excerpt Number: 42

Comment: The proposed reporting requirements should be eliminated for natural gas processing facilities. The great majority (80 to 85 percent) of supplied NGL are not combusted and thus do not result in GHG emissions. As such, information about most of the NGL supplied by gas processing Facilities will add nothing to the development of a cap and trade program. Moreover, all production data regarding NGL in the United States is reported to the Department of Energy, EPA should use that data instead of requiring duplicative — and largely irrelevant — reporting by the regulated community. Further, the NGL that are combusted in this context are odorized propane. This is significant because under a program overseen by the Propane Education & Research Council ("PERC"), an owner of propane files volume reports when the propane is odorized. This means that to-be-combusted NGL supplied by natural gas processing Facilities are already being measured and reported. EPA should use the PERC data instead of imposing unnecessary reporting requirements upon suppliers.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

EPA reviewed the possibility of obtaining data by accessing existing Federal government reporting databases in light of our proposal and additional input from commenters. EPA decided not to modify the final rule because collecting data directly in a central system will enable EPA to electronically verify all data reported under this rule quickly and consistently, to use the information for non-statistical purposes, and to handle confidential business information in accordance with the Clean Air Act (see Preamble section II.R for additional discussion on CBI).

In the specific case of Subpart NN, EPA determined that it could not rely on EIA data to collect facility-level data from fractionators and company-level data from LDCs. First, EIA relies on a number of legal authorities to pledge confidentiality to statistical survey respondents for company-level information. Some data are collected with legal authority from the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA), under which reported information must be held in confidence and must be used for statistical purposes only. Second, EPA seeks some data that is beyond what EIA collects, such as quality assurance information, verification data, and information on odorized propane. EPA also seeks data on site-specific HHV and carbon content from those sites that choose to sample and test products rather than use default emission factors. For all information that is collected by both EPA and EIA, EPA established its reporting formats and requirements to line up to the maximum extent possible with EIA formats and requirements. This was done to minimize burden on the reporter.

EPA determined that we could not rely on PERC data because we seek information on all NGLs, not just propane.

Commenter Name: T. LaSalle

Commenter Affiliation: HLP Engineering Inc

Document Control Number: EPA-HQ-OAR-2008-0508-0268.1

Comment Excerpt Number: 4

Comment:

The 'explanation' of 'Natural Gas Processing Plant' in 98.400(a) does not match up exactly as the definition of 'Natural Gas Processing Facilities' in the definition section of 98.6. This does not seem intentional since the definition of Natural Gas Liquids excludes lease condensate for purposes of Subpart NN. Therefore, the possibility of an ambiguous interpretation is introduced. In particular, the term 'separate' is used in 98.400(a) when the term 'extract' is used in the definition section. Historically, this has been clarified as a term having an intentional meaning as provided in EPA Report No.: EPA-450/3-82-024b; pg. 5-1, paragraph 4. From this commenter's perspective, it appears that the proposed rule is trying to adopt or identify the same type of process in regards to a true natural gas processing plant.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Pamela F. Faggert

Commenter Affiliation: Dominion

Document Control Number: EPA-HQ-OAR-2008-0508-1741

Comment Excerpt Number: 43

Comment: The rule does not distinguish between extraction facilities and cryogenic

fractionation natural gas processing facilities. NGLs that come from the fractionation-only facilities are not marketable and are sent to an extraction/fractionation facility to be fractionated into pure products that are sold into the economy and do not go exclusively to combustion uses. Therefore, we request that EPA clarify that fractionation-only facilities be exempt from reporting requirements.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

2. REPORTING THRESHOLD

Commenter Name: Karen St. John

Commenter Affiliation: BP America Inc. (BP)

Document Control Number: EPA-HQ-OAR-2008-0508-0631.1

Comment Excerpt Number: 106

Comment: Section 98.40 1 states: “Any supplier of natural gas and natural gas liquids that meets the requirements of Section 98.2 (a) (4) must report GHG emissions.” (16720). Section 98.2(a)(4) does not include a threshold for the amount of natural gas liquids a facility must produce in order to be subject to reporting. Many facilities producing small amounts of natural gas liquids would thus be subject to the reporting rule. BP requests that a threshold for the amount of odorized propane and/or butane that is equivalent to 25,000 metric tonnes of CO₂ equivalency when combusted be included in the rule.

Response: Please see Preamble section III.NN.3 for a response to collecting data on odorized propane under the heading *Definition of Source Category*.

Please see response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 16 for a response to establishing a threshold.

Commenter Name: Karen St. John

Commenter Affiliation: BP America Inc. (BP)

Document Control Number: EPA-HQ-OAR-2008-0508-0631.1

Comment Excerpt Number: 104

Comment: The Proposed Rule’s treatment of natural gas liquids (NGL) suppliers would dramatically overstate GHG emissions attributable to NGL consumption. EPA’s approach to NGLs produced by domestic processors would also “double-count” the upstream emissions attributable to these products. Subpart NN would require domestic natural gas processors to specifically report emissions associated with the complete combustion of certain individual NGL products (propane, butane, ethane, and isobutene) as well as “bulk NGLs” (referring to undifferentiated mixtures of NGLs, excluding lease condensate). However, as in the petroleum products industry, domestic natural gas processors often produce semi-refined, intermediate NGL products (including bulk NGLs and “raw mix”) that are delivered to other processors and fractionators for further processing and separation. The magnitude of the double-counting that would occur under the proposed Subpart NN is significant. According to the most recent industry survey, there are 308 processing facilities in the U.S. that exclusively produce “raw mix” or bulk NGLs for further separation, with a total production of approximately 314 million barrels per year (47% of US NGL production).[Footnote: Gas Processing Survey, Oil & Gas Journal June 23, 2008.] These intermediate products have no market or use other than further separation.

Rather, this product is sold to fractionators who separate the product into its constituent parts. It is these fractionators, rather than the producers of the raw make or Y-grade, Bulk NGL who would best know the end use of the products. Without this change to the reporting of intermediate products, the Proposed Rule would count emissions from the same unit of production multiple times as it proceeds down the natural gas liquids processing chain. This unnecessary double-counting should be avoided by eliminating reporting of bulk NGLs, and placing the reporting requirement on fractionators (who separate NGLs into their individual components, and are in the best position to know which NGLs will ultimately be combusted). Within the NGL supply chain, fractionators are the facilities most comparable to refiners (which bear the obligation of reporting upstream petroleum product emissions under the proposed Subpart MM) and LDCs (which bear the obligation of reporting upstream natural gas emissions under the proposed Subpart NN. Proposed 40 CFR § 98.402(a) would require domestic natural gas processing facilities to report CO₂ emissions that would result from complete combustion of all NGLs produced at those facilities. In addition, proposed 40 CFR § 98.390(c) would require importers of petroleum products to report CO₂ emissions that would result from complete combustion of all NGLs introduced to the United States. However, as EPA recognizes in its TSD for Natural Gas Suppliers, an overwhelming proportion of NGLs produced or imported in the United States are not used as fuels – indeed, data from the American Petroleum Institute indicates that from 2000 to 2007, between 69.2% and 75.3% of all NGLs sold each year were used for non-fuel purposes. For example, ethane produced by fractionators is usually delivered as an input for the production of plastics. As EPA also recognizes, processors are usually not in a position to know the ultimate use or disposition of the NGLs they supply. The same is generally true of importers. Given these facts, EPA should reconsider the “upstream” reporting approach it has adopted for NGLs, and instead place the reporting requirement on major entities which purchase or distribute odorized propane, butane, or mixed propane/butane for known, combustive end-uses. Fractionators or blenders of odorized propane, butane, or mixed propane/butane are the most appropriate domestic reporting entity for this purpose, since fractionators often know the end-use associated with their products. Such an approach would provide EPA with a more accurate understanding of the contribution that NGLs make to nationwide GHG emissions.

Response: Please see response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 106.

Commenter Name: See Table 3

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0679.1

Comment Excerpt Number: 243

Comment: 98.401 states: “Any supplier of natural gas and natural gas liquids that meets the requirements of § 98.2(a)(4) must report GHG emissions.” (16720). API comments: § 98.2(a)(4) does not include a threshold for the amount of natural gas liquids a facility must produce in order to be subject to reporting. Many facilities produce small amounts of natural gas liquids would thus be subject to the reporting rule. API requests that a threshold for the amount of odorized propane and/or butane that is equivalent to 25,000 metric tonnes of CO₂ equivalency when combusted be included in the rule.

Response: Please see Preamble section III.NN.3 for a response to collecting data on odorized propane under the heading *Definition of Source Category*.

Please see response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 16 for a response to establishing a threshold.

Commenter Name: Kathleen M. Sgamma

Commenter Affiliation: Independent Petroleum Association of Mountain States (IPAMS)

Document Control Number: EPA-HQ-OAR-2008-0508-0521.1

Comment Excerpt Number: 34

Comment: The proposed rule states: “Any supplier of natural gas and natural gas liquids that meets the requirements of §98.2 (a) (4) must report GHG emissions.” (p. 16720) §98.2(a)(4) does not include a threshold for the amount of natural gas liquids a facility must produce in order to be subject to reporting requirements. Many facilities produce very small amounts of natural gas liquids, and as the rule is written, would be subject to reporting. IPAMS requests that a threshold amount of natural gas liquid production be established for reporting requirement purposes.

Response: Please see Preamble section III.NN.3 for a response to collecting data on odorized propane under the heading *Definition of Source Category*.

Please see response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 16 for a response to establishing thresholds.

Commenter Name: John Robitaille

Commenter Affiliation: Petroleum Association of Wyoming (PAW)

Document Control Number: EPA-HQ-OAR-2008-0508-1603

Comment Excerpt Number: 3

Comment: 98.401 Reporting threshold. § 98.2(a)(4) does not include a threshold for the amount of natural gas liquids a facility must produce in order to be subject to reporting. Many facilities produce small amounts of natural gas liquids would thus be subject to the reporting rule. API requests that a threshold for the amount of odorized propane and/or butane that is equivalent to 25,000 metric tons of CO₂ equivalency when combusted be included in the rule.

Response: Please see Preamble section III.NN.3 for a response to collecting data on odorized propane under the heading *Definition of Source Category*.

Please see response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 16 for a response to establishing thresholds.

Commenter Name: Deborah Seligman

Commenter Affiliation: New Mexico Oil and Gas Association (NMOGA)

Document Control Number: EPA-HQ-OAR-2008-0508-0603.1

Comment Excerpt Number: 4

Comment: "§98.401 Reporting threshold. Any supplier of natural gas and natural gas liquids

that meets the requirements of § 98.2(a)(4) must report GHG emissions." (74 FR 16720) §98.2(a)(4) does not include a threshold for the amount of natural gas liquids (NGLs) a facility must produce in order to be subject to reporting. Many facilities produce small amounts of natural gas liquids would thus be subject to the reporting rule. NMOGA requests that a threshold for the amount of odorized propane, butane, or propane/butane mix that is equivalent to 25,000 metric tonnes of CO₂ emissions when combusted be included in the rule.

Response: Please see Preamble section III.NN.3 for a response to collecting data on odorized propane under the heading *Definition of Source Category*.

Please see response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 16 for a response to establishing thresholds.

3. GHGS TO REPORT

Commenter Name: Deborah Seligman

Commenter Affiliation: New Mexico Oil and Gas Association (NMOGA)

Document Control Number: EPA-HQ-OAR-2008-0508-0603.1

Comment Excerpt Number: 3

Comment: NMOGA is concerned that EPA's requirement for reporting of "natural gas liquids" (NGLs) as outlined in Subparts MM and NN will result in significant "double counting" and inaccurate estimation of GHG emissions. The accuracy and validity of the inventory is significantly undermined by assuming, as does the proposed rule, that 100 percent of NGLs lead to GHG emissions as though fully combusted. By EPA requiring reporting at the tailgate of the natural gas processing facility, which by definition could include several processing facilities for one stream of NGLs, associated product emissions could be reported several times. Additionally, EPA's failure to account for the fact that the vast majority of NGLs are used in non-emitting applications such as feedstock for chemical plants or blendstock for refineries as noted in EPA's Technical Support Document, will result in reporting of emissions that will never occur.

"§98.402 GHGs to report. (a) Natural gas processing plants must report the CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of propane, butane, ethane, isobutane and bulk NGLs sold or delivered for use off site."(16720)

As noted above, EPA's proposed requirements for reporting of "natural gas liquids" (NGLs) contained in Subparts MM and NN will result in significant "double counting" and inaccurate estimation of GHG emissions. Odorized propane and/or butane are almost exclusively used for NGL based fuels and should be the focus of the rule rather than the broad production of all NGLs. NMOGA suggests that reporting of NGLs be restricted to odorized propane, butane, or propane/butane mix. Such reporting should only be required from facilities which fractionate NGLs into their particular components and are sources of fuel quality propane/butane. This will avoid the double counting of mixed NGLs which are subsequently fractionated at different facilities and reported a second (or perhaps third) time. It will also avoid the incorrect reporting of GHG emissions from NGLs which are not suitable for, or destined for, use as a combustion fuel.

Response: Please see Preamble section III.NN.3 for a response to this comment.

Commenter Name: Steve Donatiello
Commenter Affiliation: Laclede Gas Company
Document Control Number: EPA-HQ-OAR-2008-0508-0763.1
Comment Excerpt Number: 8

Comment: Laclede operates a mined propane storage cavern. This cavern is used to store liquid propane for winter peak shaving by blending vaporized propane with natural gas supply for delivery to customers. It is also used, however, to provide offsite storage of propane for a local refinery by means of a pipeline connection. Because of this added off-site storage function, large volumes of the propane, which are metered into and out of the cavern through the pipeline, do not end up in the gas supplied to (and consumed by) our customers. Therefore, Laclede recommends that EPA modify the regulation to make clear that only the net volume of propane (or LNG) supplied to the LDC's customers be included in GHG emission calculations. Liquid propane volumes otherwise received and delivered should not be included in the LDC's GHG calculations nor under Subpart W, because the end-use of this propane is not known other than to the ultimate end-user, which Laclede has no knowledge of nor control over. Laclede also operates an underground natural gas storage field. The storage field allows Laclede to acquire and "bank" natural gas during off-peak periods to help ensure an adequate economical winter supply for our customers. Gas purchased during one calendar year may be used during the following calendar year. Thus any attempt to correlate gas transfer into a storage field with gas usage by calendar year is unworkable. Further, gas purchased and transferred into storage in one year may not be used for several years. In order to address these issues, Laclede recommends that 40 CFR 98.402(b) be modified to read as follows: (b) Local distribution companies must report the CO₂e emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas, LNG, or propane delivered to end-users. Transfers of natural gas, LNG or propane into or out of storage facilities are not to be reported.

Response: EPA appreciates this comment, and has clarified the final Rule as a result. An LDC must now add to the year's natural gas supply total any propane or natural gas injected into the distribution system from storage in that year and must now subtract any natural gas received at the city gate and injected into storage in that year. For completeness, an LDC must also add to the year's natural gas supply total any natural gas that bypasses the city gate and is delivered directly to LDC distribution systems in that year from producers or natural gas processing plants from local production. EPA has concluded that these additional equations and steps are necessary to enable an LDC to report accurately the supply of natural gas it delivers to end-users in the given year.

Under the final rule, a propane storage cavern will not be required to report propane volumes, given the information provided by the commenter. It must be noted that any refinery receiving propane from a storage site or delivering propane to a storage site must report it under MM. Furthermore, any company that imports or exports propane directly to end users must report under Subpart MM.

Commenter Name: See Table 5
Commenter Affiliation:
Document Control Number: EPA-HQ-OAR-2008-0508-0709.1
Comment Excerpt Number: 21

Comment: AGA supports the comments of its member Laclede Gas regarding the need to

clarify proposed section 98.402(b) with regard to propane and natural gas storage. For example, Laclede Gas Company operates a mined propane storage cavern that the company uses to store liquid propane for winter peak shaving by blending vaporized propane with natural gas supply for delivery to customers. It is also used, however, to provide offsite storage of propane for a local refinery by means of a pipeline connection. Because of this added off-site storage function, large volumes of the propane, which are metered into and out of the cavern through the pipeline, do not end up in the gas supplied to (and combusted by) the utility's customers. To address this situation, AGA agrees that EPA should revise section 98.402(b) to make it clear that only the net volume of propane (or LNG) supplied to customers should be included in the gas utility's GHG emission calculations. Liquid propane volumes otherwise received and delivered should not be included in the utility's GHG calculations or under Subpart W, because only the end user knows whether the propane is combusted thereby emitting CO₂, or used in a non-emitting process as product feedstock. Several AGA members also operate underground natural gas storage fields. Underground storage allows a gas utility to acquire and "bank" natural gas during off-peak periods to help ensure adequate economical supply for customers during winter peak periods. Gas purchased during one calendar year may be used during the following calendar year. Thus any attempt to correlate gas transfer into a storage field with gas usage and combustion by calendar year is unworkable. Further, gas purchased and transferred into storage in one year may not be used for several years. In order to address these issues, AGA recommends that 40 CFR 98.402(b) should be modified to read as follows: (b) Local distribution companies must report the CO₂e emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas, LNG, or propane provided to end-users. Transfers of natural gas, LNG or propane into or out of storage facilities are not to be reported.

Response: Please see response to comment EPA-HQ-OAR-2008-0508-0763.1, excerpt 8.

Commenter Name: Steve Donatiello

Commenter Affiliation: Laclede Gas Company

Document Control Number: EPA-HQ-OAR-2008-0508-0763.1

Comment Excerpt Number: 10

Comment: Concerning the requirement at 40 CFR 98.406(b)(4) for LDCs to itemize and report natural gas volumes delivered to "each individual covered facility" greater than or equal to 460,000 Mcf per year, as well as any other "end-user," Laclede objects to this provision on several grounds and urges EPA to omit this requirement. To the LDC, a meter is a "customer." The LDC can only know how much gas is delivered to an individual customer meter. To illustrate, large campuses of a particular industrial concern or government installation, for instance, are often served by multiple gas meters at dispersed locations. The "customer accounts" to which these meters are registered often go by different names (corporate divisions, subsidiaries, etc.). While the aggregate gas consumption counted by all of the meters serving such a facility may meet or exceed 460,000 Mcf per year, the LDC has no way to attest that all of this multiple-metered usage is attributable to a single, centralized entity ("end-user"). It must therefore be left up to end-users served by more than one gas meter, not the LDC, to report to EPA whether its aggregate usage meets or exceeds the 460,000 Mcf per year threshold, assuming that is EPA's goal. Laclede also has concerns about the proprietary nature of customer usage records and believes that EPA should not take measure that would reveal as public record gas volumes reported down to a customer-specific basis. There are also Department of Homeland Security CFATS requirements that this section of the rule could potentially overlap or conflict with that EPA may wish to explore. In the event that EPA retains this or any portion of this

section, EPA should be more specific as to the definition of terms. It is extremely important that EPA confine the reporting requirement, based on volume delivered, to a single meter. Under the system proposed by EPA to use “EPA and EIA identification codes,” it appears that EPA views an “end-user” as a single entity; however, EPA must understand that an end-user, to the LDC, may be served by more than one gas meter. Using its billing system the LDC can only attest to the gas volume delivered through a single particular meter at a single particular location, based on regular meter readings. Therefore, 40 CFR 98.406(b)(4) should simply read, “The customer name, address, meter number and total actual natural gas volume delivered by the local gas distribution company for each meter registering greater than or equal to 460,000 Mcf during the calendar year.”

Response: Please see Section III.NN.3 of the Preamble for a response to this comment. For a response to comments about confidential business information (CBI), see the Preamble section II.R.

With regards to concerns about compliance with the Department of Homeland’s Security Chemical Facility Anti-Terrorism Standards (DHS CFATS), EPA disagrees that a requirement to report volume of gas delivered on a customer level under Subpart NN of the Rule would violate the DHS CFATS. First, unless an LDC customer possesses any of the chemicals listed under “DHS Chemical of Interest” under 6 CFR part 27, Appendix to Chemical Facility Anti-Terrorism Standards; Final Rule, and meets CFATS criteria for high-risk chemical facilities, it would not be subject to the DHS CFATS. Secondly, compliance with the DHS CFATS requires chemical facilities that pose a high level of danger to US security under terrorist attacks to: (1) prepare Security Vulnerability Assessments and (2) develop and implement Site Security Plans to fortify vulnerabilities identified in the Assessment. Site Security Plans are performance-based, and differ for each regulated entity under the DHS CFATS. While these Plans may forbid certain chemical facilities regulated under CFATS from disclosing the volume of gas received from LDCs on a customer level, it is unlikely that all LDCs have Site Security Plans with this requirement. As a result of the criteria that LDC customers must meet to be regulated under the DHS CFATS and variability of Site Security Plans adopted under this legislation, EPA does not believe that reporting natural-gas volumes delivered to LDC customers would be in violation of the DHS CFATS.

Commenter Name: See Table 3

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0679.1

Comment Excerpt Number: 245

Comment: The proposed rule’s treatment of natural gas liquids (NGL) suppliers would dramatically overstate GHG emissions attributable to NGL consumption. EPA’s approach to NGLs produced by domestic processors would also “double-count” the upstream emissions attributable to these products. Subpart NN would require domestic natural gas processors to specifically report emissions associated with the complete combustion of certain individual NGL products (propane, butane, ethane, and isobutene) as well as “bulk NGLs” (referring to undifferentiated mixtures of NGLs, excluding lease condensate). However, as in the petroleum products industry, domestic natural gas processors often produce semi-refined, intermediate NGL products (including bulk NGLs and “raw mix”) that are delivered to other processors and fractionators for further processing and separation. The magnitude of the double-counting that would occur under the proposed Subpart NN is significant. According to the most recent industry

survey, there are 308 processing facilities in the U.S. that exclusively produce “raw mix” or bulk NGLs for further separation, with a total production of approximately 314 million barrels per year (47% of US NGL production). [footnote: Gas Processing Survey, Oil & Gas Journal June 23, 2008.] These intermediate products have no market or use other than further separation. Rather, this product is sold to fractionators who separate the product into its constituent parts. It is these fractionators, rather than the producers of the raw make or Y-grade, Bulk NGL who would best know the end use of the products. Without this change to the reporting of intermediate products, the proposed rule would count emissions from the same unit of production multiple times as it proceeds down the natural gas processing chain. This unnecessary double-counting should be avoided by eliminating reporting of bulk NGLs, and placing the reporting requirement on fractionators (who separate NGLs into their individual components, and are in the best position to know which NGLs will ultimately be combusted). Within the NGL supply chain, fractionators are the facilities most comparable to refiners (which bear the obligation of reporting upstream petroleum product emissions under the proposed Subpart MM) and LDCs (which bear the obligation of reporting upstream natural gas emissions under the proposed Subpart NN. Proposed 40 CFR § 98.402(a) would require domestic natural gas processing facilities to report CO₂ emissions that would result from complete combustion of all NGLs produced at those facilities. In addition, proposed 40 CFR § 98.390(c) would require importers of petroleum products to report CO₂ emissions that would result from complete combustion of all NGLs introduced to the United States. However, as EPA recognizes in its TSD for Natural Gas Suppliers, an overwhelming proportion of NGLs produced or imported in the United States are not used as fuels – indeed, data from the American Petroleum Institute indicates that from 2000 to 2007, between 69.2% and 75.3% of all NGLs sold each year were used for non-fuel purposes. For example, ethane produced by fractionators is usually delivered as an input for the production of plastics. As EPA also recognizes, processors are usually not in a position to know the ultimate use or disposition of the NGLs they supply. The same is generally true of importers. Given these facts, EPA should reconsider the “upstream” reporting approach it has adopted for NGLs, and instead place the reporting requirement on major entities which purchase or distribute NGLs for known, combustive end-uses. Fractionators are the most appropriate domestic reporting entity for this purpose, since fractionators often know the end-use associated with their products. Such an approach would provide EPA with a more accurate understanding of the contribution that NGLs make to nationwide GHG emissions. These combustion NGLs would likely also be reported by the combustor. Suggested change regarding NGLs: 40 CFR § 98.402(a) Natural gas processing plants must report the CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of propane, butane, ethane, and isobutene and bulk NGLs sold or delivered for use off site.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Dan F. Hunter

Commenter Affiliation: ConocoPhillips Company

Document Control Number: EPA-HQ-OAR-2008-0508-0515.1

Comment Excerpt Number: 67

Comment: 98.402(a) requires natural gas processing plants to report the CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of propane, butane, ethane, isobutane and bulk NGLs sold or delivered for use off site. Some of the products produced at natural gas processing plants maybe used in chemical manufacturing and may not be combusted. These products will also have to be reported as though they are combusted.

ConocoPhillips recommends that products that are used to make other chemical products should not be reported as though they are completely combusted.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Lorraine Krupa Gershman

Commenter Affiliation: American Chemistry Council (ACC)

Document Control Number: EPA-HQ-OAR-2008-0508-0423.2

Comment Excerpt Number: 163

Comment: Reporting CO₂ from suppliers of natural gas and natural gas liquids under Subpart MM will significantly over report emissions of CO₂. According to §98.402(a), “Natural gas processing plants must report the CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of propane, butane, ethane, isobutene and bulk NGL”s sold or delivered for use off site.” One example of the over-reporting issue is the case of NGLs (raw and fractionated) imported into a feedstock purification unit in an olefins plant. The purification unit processes the NGLs. Some compounds are sent to the olefins plant as feedstock and some are sold to third parties as either fuel or feedstock depending on the economics. Normally, feedstock is the economically preferred option. If the third party sales go into the fuel market, the buyer is usually a large fuel supplier or user. Multiple counting of CO₂ occurs as indicated below. (1) The CO₂ from the imported NGL”s would be reported by the supplier. None of this NGL is directly combusted. (2) The CO₂ from processed NGLs sold as feedstock would also be reported. None of this NGL is directly combusted. (3) The CO₂ from the processed NGLs sold as fuel would likely be reported again if sold to another supplier or again under the Subpart C, Combustion, if sold to a user. (4) The NGLs sold to the supplier have the potential to be reported again by the ultimate user if the user emits more than 25,000 tons. CO₂ emissions from olefins are primarily from combustion - over 99%. Some of the fuel is imported (reported by suppliers) but the majority of the fuel is internally produced in the cracking process. The combustion emissions are double counted since they are first counted by the NGL supplier. A very minimal amount (less than 1%) of CO₂ emissions are from flaring and decoking. EPA should recognize the issue of double counting these CO₂ emissions, and allow facilities to account for these emissions subject to one of the applicable subparts.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

From the information provided in the specific example above, it appears that the upstream supplier (importer) would be required to report the CO₂ emissions that would result from complete oxidation or combustion of the NGLs imported; and that any end-user of the NGLs who ultimately combusts it in a stationary source would be required to report the CO₂ emissions from combustion. It appears the olefin plant would not be covered under Subparts NN or MM and would not be required to report the CO₂ emissions that would result from complete oxidation or combustion of the NGLs received or further supplied. See Preamble section II.D and comment response document volume 1 for a response to comment about seeking data from both upstream and downstream sources.

Commenter Name: Robert D. Bessette

Commenter Affiliation: The Council of Industrial Boiler Owners (CIBO).

Document Control Number: EPA-HQ-OAR-2008-0508-0513.1

Comment Excerpt Number: 44

Comment: Subpart NN requires reporting of CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of propane, butane, ethane, isobutene and bulk NGLs sold or delivered for use off site and from the complete combustion or oxidation of the annual volumes of natural gas provided to end users. Data provided under this subpart in combination with Subpart MM will result in double counting of potential emissions where consuming entities are reporting combustion related emissions from those products. This data will also result in over-counting of CO₂ emissions for those cases where those products are used as feedstocks and a portion of that carbon is sequestered in products. It is unknown how EPA will handle this data, but the potential for gross mischaracterization exists and this issue needs to be appropriately addressed by EPA.

In addition, the supplier category consists of natural gas processing plants and local natural gas distribution companies (LDC), but not any intermediate entities. Some natural gas consumers bypass the LDCs. It is not apparent if EPA intends to capture those intermediate supplying entities other than through consumer reporting as applicable covered facilities.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

EPA is aware that not all consumers receive natural gas from LDCs. For example, many electric utilities receive pipeline quality gas directly from production. For the proposal, EPA considered various reporting scenarios to maximize coverage of natural gas in the economy while minimizing burden on industry. In light of this comment, EPA reconsidered the various reporting scenarios. EPA has concluded that the final approach for collecting natural gas data is the most appropriate one because it maximizes coverage, minimizes burden, and is technically feasible and achievable. In the final rule, the CO₂ emissions that would result from the complete combustion and oxidation of the roughly 60 percent of natural gas this is delivered to end-users via an LDC will be reported under Subpart NN. The CO₂ emissions from the remaining 40 percent of natural gas consumed will be reported in other Subparts by downstream end-users, such as electric generating units, stationary combustion sources, and ammonia facilities. Therefore, EPA has concluded that coverage of the entire NG supply is as complete as feasible when all data reported under the entire rule is taken together.

Commenter Name: Kim Dang

Commenter Affiliation: Kinder Morgan Energy Partners, L.P.

Document Control Number: EPA-HQ-OAR-2008-0508-0370.1

Comment Excerpt Number: 35

Comment: Kinder Morgan is engaged in transporting and processing NGLs. Kinder Morgan transports NGLs over two pipelines. First, our Cochin pipeline system consists of an approximately 1,900-mile pipeline operating between Fort Saskatchewan, Alberta and Windsor, Ontario. Even though the pipeline begins and ends in Canada, along the way it traverses through and has terminals within the United States. Second, our Cypress pipeline is also an interstate carrier of NGLs originating at storage facilities in Mont Belvieu, Texas and extending 104 miles east to a major petrochemical producer in the Lake Charles, Louisiana area. Kinder Morgan owns several plants that process NGLs. As explained in more detail below, some of these NGLs are fractionated into individual products (e.g., propane, butane, ethane, and isobutane) and sold in local markets, while other “raw mix” or bulk NGLs are processed and sent to other

fractionators for further separation. The Proposed Rule's treatment of natural gas liquids (NGL) suppliers would dramatically overstate GHG emissions attributable to NGL consumption. EPA's approach to NGLs produced by domestic processors would also "double-count" the upstream emissions attributable to these products. As Kinder Morgan understands the Proposed Rule, Subpart NN would require domestic natural gas processors to specifically report emissions associated with the complete combustion of certain individual NGL products (propane, butane, ethane, and isobutane) as well as "bulk NGLs" (referring to undifferentiated mixtures of NGLs, excluding lease condensate). However, as in the petroleum products industry, domestic natural gas processors often produce semi-refined, intermediate NGL products (including bulk NGLs and "raw mix") that are delivered to other processors and fractionators for further processing and separation. The magnitude of the double-counting that would occur under the proposed Subpart NN is significant. As described above, there are 308 processing facilities in the U.S. that exclusively produce "raw mix" or bulk NGLs for further separation. These intermediate products have no market or use other than further separation. Rather, this product is sold to fractionators who separate the product into its constituent parts. It is these fractionators, rather than the producers of the raw make or Y-grade, bulk NGLs who handle all the final commercial deliveries of NGL products and there are significantly fewer fractionators than NGL producers. Without a change to the reporting of intermediate products, the Proposed Rule would count emissions from the same unit of production multiple times as it proceeds down the natural gas processing chain. Kinder Morgan urges EPA to avoid this unnecessary multiple-counting by eliminating reporting of bulk NGLs, and placing the reporting requirement on fractionators. Fractionators separate NGLs into their individual components, and are in the best position to know which NGLs will ultimately be combusted based on physical deliveries to their customers. Within the NGL supply chain, fractionators are the facilities most comparable to refiners (which bear the obligation of reporting upstream petroleum product emissions under the proposed Subpart MM) and LDCs (which bear the obligation of reporting upstream natural gas emissions under the proposed Subpart NN). There are approximately 144 fractionators in the U.S.⁴⁸ This smaller number of fractionators compared to NGL producers also makes the reporting requirement less burdensome. [40 C.F.R. 98.402(a) Natural gas processing plants that fractionate NGLs must report the CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of propane, butane, ethane, isobutane, and bulk NGLs natural gasoline sold or delivered for use off site. Fractionated NGLs that are still subject to further processing prior to use (e.g., refinery), or are for a non-combustion end-use may be excluded.]

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: See Table 6

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0635

Comment Excerpt Number: 97

Comment: EPA presently requires suppliers of coal, petroleum products, and natural gas to report only CO₂, but requests comment on whether to apportion "national inventory estimates of CH₄ and N₂O emissions" among suppliers based on the quantity of their products. We support including these emissions, which are quite significant. Across the three fuel categories, the N₂O emissions that EPA presently excludes total 44.93 Mt CO₂e. This figure is substantially larger than the emissions of several entire industry categories. It should not go unaccounted for. EPA should apportion these emissions, as it suggests.

Response: EPA has considered comments that upstream suppliers should report CH₄ and N₂O emissions that would result from the complete combustion or oxidation of petroleum products and natural gas. CH₄ and N₂O emissions from fossil fuels are highly dependent on technology and operating environment and are therefore not uniform at the downstream combustion facility. For this reason, EPA has concluded that an apportioning approach to account for CH₄ and N₂O emissions would provide EPA with useful information under the scope of this rule. See Preamble section II.C for a general discussion of GHGs to report in this rule.

Commenter Name: See Table 3

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0679.1

Comment Excerpt Number: 242

Comment: EPA requests comment “on whether or not EPA should use the national inventory estimates of CH₄ and N₂O emissions from natural gas combustion, and apportion them to individual natural gas suppliers based on the quantity of their product,” and EPA requests “comment on an approach in which natural gas suppliers would be required to develop facility- and batch-specific carbon contents through periodic sampling and analysis.” (p. 16577) API Comment: EPA should rely on available information and reports and only gather the data necessary to fill gaps in this available information. Also, NGL's destined for combustion use and hence emissions are a small subset of the entire spectrum and volume of NGL produced. API has suggested that EPA change the focus for reporting of NGL's to odorized propane, butane, or mixed propane/butane from fractionation facilities or blenders as these represent the only sources of NGL's destined for fuels. Given the small role that CH₄ and N₂O play in combustion CO₂ equivalents (<1%), API believes there is no value in batch- specific carbon content analysis and/or information.

Response: Please see the response to comment EPA-HQ-OAR-2008-0508-0635, excerpt 97 and Section III.NN.3 of the Preamble.

Commenter Name: See Table 3

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0679.1

Comment Excerpt Number: 244

Comment: 140. 98.402 states: “(a) Natural gas processing plants must report the CO₂ emissions that would result from the complete combustion or oxidation of the annual quantity of propane, butane, ethane, isobutane and bulk NGLs sold or delivered for use off site.” API comments: EPA’s requirements for reporting of “natural gas liquids” (NGL’s) contained in Subparts MM and NN will result in significant “double counting” of NGL’s and reporting of NGL’s which are used for chemical feedstock and do not result in GHG emissions from their combustion. In fact, most of the NGL produced in the US or imported is used as feedstock rather than fuel – as noted in EPA’s Technical Support Document. Odorized propane and/or butane are almost exclusively used for NGL based fuels and should be the focus of the rule rather than the broad production of all NGL’s. API suggests that reporting of NGL’s be restricted to odorized propane and/or butane (or propane/butane mix) and that such reporting only be required from facilities which fractionate NGL’s into their particular components, which are the only sources of fuel quality propane/butane, and blenders which odorize and sell propane/butane for fuel use. This will avoid

the double counting of mixed NGL's which are subsequently fractionated at different facilities and reported a second (or perhaps third) time. It will also avoid the reporting of NGL's which are not suitable for or destined for fuel use and subsequent emissions.

Response: Please see Section III.NN.3 of the Preamble and response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 106.

Commenter Name: John Robitaille

Commenter Affiliation: Petroleum Association of Wyoming (PAW)

Document Control Number: EPA-HQ-OAR-2008-0508-1603

Comment Excerpt Number: 4

Comment: EPA's requirements for reporting of "natural gas liquids" (NGLs) contained in Subparts MM and NN will result in significant "double counting" of NGLs and reporting of NGLs which are used for chemical feedstock and do not result in GHG emissions from their combustion. In fact, most of the NGL produced in the US or imported is used as feedstock rather than fuel — as noted in EPA's Technical Support Document. Odorized propane and/or butane are almost exclusively used for NGL based fuels and should be the focus of the rule rather than the broad production of all NGLs. PAW suggests that reporting of NGLs be restricted to odorized propane and/or butane (or propane/butane mix) and that such reporting only be required from facilities which fractionate NGLs into their particular components, which are the only sources of fuel quality propane/butane. This will avoid the double counting of mixed NGLs which are subsequently fractionated at different facilities and reported a second (or perhaps third) time. It will also avoid the reporting of NGLs which are not suitable for or destined for fuel use and subsequent emissions.

Response: Please see Section III.NN.3 of the Preamble and response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 106.

Commenter Name: Karen St. John

Commenter Affiliation: BP America Inc. (BP)

Document Control Number: EPA-HQ-OAR-2008-0508-0631.1

Comment Excerpt Number: 104

Comment: The Proposed Rule's treatment of natural gas liquids (NGL) suppliers would dramatically overstate GHG emissions attributable to NGL consumption. EPA's approach to NGLs produced by domestic processors would also "double-count" the upstream emissions attributable to these products. Subpart NN would require domestic natural gas processors to specifically report emissions associated with the complete combustion of certain individual NGL products (propane, butane, ethane, and isobutene) as well as "bulk NGLs" (referring to undifferentiated mixtures of NGLs, excluding lease condensate). However, as in the petroleum products industry, domestic natural gas processors often produce semi-refined, intermediate NGL products (including bulk NGLs and "raw mix") that are delivered to other processors and fractionators for further processing and separation. The magnitude of the double-counting that would occur under the proposed Subpart NN is significant. According to the most recent industry survey, there are 308 processing facilities in the U.S. that exclusively produce "raw mix" or bulk NGLs for further separation, with a total production of approximately 314 million barrels per year (47% of US NGL production).[Footnote: Gas Processing Survey, Oil & Gas Journal June

23, 2008.] These intermediate products have no market or use other than further separation. Rather, this product is sold to fractionators who separate the product into its constituent parts. It is these fractionators, rather than the producers of the raw make or Y-grade, Bulk NGL who would best know the end use of the products. Without this change to the reporting of intermediate products, the Proposed Rule would count emissions from the same unit of production multiple times as it proceeds down the natural gas liquids processing chain. This unnecessary double-counting should be avoided by eliminating reporting of bulk NGLs, and placing the reporting requirement on fractionators (who separate NGLs into their individual components, and are in the best position to know which NGLs will ultimately be combusted). Within the NGL supply chain, fractionators are the facilities most comparable to refiners (which bear the obligation of reporting upstream petroleum product emissions under the proposed Subpart MM) and LDCs (which bear the obligation of reporting upstream natural gas emissions under the proposed Subpart NN. Proposed 40 CFR § 98.402(a) would require domestic natural gas processing facilities to report CO₂ emissions that would result from complete combustion of all NGLs produced at those facilities. In addition, proposed 40 CFR § 98.390(c) would require importers of petroleum products to report CO₂ emissions that would result from complete combustion of all NGLs introduced to the United States. However, as EPA recognizes in its TSD for Natural Gas Suppliers, an overwhelming proportion of NGLs produced or imported in the United States are not used as fuels – indeed, data from the American Petroleum Institute indicates that from 2000 to 2007, between 69.2% and 75.3% of all NGLs sold each year were used for non-fuel purposes. For example, ethane produced by fractionators is usually delivered as an input for the production of plastics. As EPA also recognizes, processors are usually not in a position to know the ultimate use or disposition of the NGLs they supply. The same is generally true of importers. Given these facts, EPA should reconsider the “upstream” reporting approach it has adopted for NGLs, and instead place the reporting requirement on major entities which purchase or distribute odorized propane, butane, or mixed propane/butane for known, combustive end-uses. Fractionators or blenders of odorized propane, butane, or mixed propane/butane are the most appropriate domestic reporting entity for this purpose, since fractionators often know the end-use associated with their products. Such an approach would provide EPA with a more accurate understanding of the contribution that NGLs make to nationwide GHG emissions.

Response: Please see Section III.NN.3 of the Preamble and response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 106.

Commenter Name: Kim Dang

Commenter Affiliation: Kinder Morgan Energy Partners, L.P.

Document Control Number: EPA-HQ-OAR-2008-0508-0370.1

Comment Excerpt Number: 36

Comment: Kinder Morgan also understands that the Proposed Rule would require domestic natural gas processing facilities to report CO₂ emissions that would result from complete combustion of all NGLs produced at those facilities. In addition, importers of petroleum products would be required to report CO₂ emissions that would result from complete combustion of all NGLs introduced to the United States. However, as EPA recognizes in its TSD for Natural Gas Suppliers, an overwhelming proportion of NGLs produced or imported in the United States are not used as fuels – indeed, data from the American Petroleum Institute indicates that from 2000 to 2007, between 69.2% and 75.3% of all NGLs sold each year were used for non-fuel purposes.⁵¹ As EPA also recognizes, processors are usually not in a position to know the

ultimate use or disposition of the NGLs they supply. The same is generally true of importers. Given these facts, Kinder Morgan urges EPA to reconsider the “upstream” reporting approach it has adopted for NGLs, and instead place the reporting requirement on major entities which purchase or distribute NGLs for known, combustive end-uses. Fractionators are the most appropriate domestic reporting entity for this purpose, since fractionators often know the end-use associated with their products. [Footnote: For example, ethane produced by fractionators is usually delivered as an input for the production of plastics, where it does not result in GHG emissions to the atmosphere.] Such an approach would provide EPA with a more accurate understanding of the contribution that NGLs make to nationwide GHG emissions. These combustion NGLs would likely also be reported by the combustor.

Response: Please see Section III.NN.3 of the Preamble and response to comment EPA-HQ-OAR-2008-0508-0631.1, excerpt 106.

4. SELECTION OF PROPOSED GHG EMISSIONS CALCULATION AND MONITORING METHODS

Commenter Name: Curtis J. Winner
Commenter Affiliation: New Mexico Gas Company (NMGC)
Document Control Number: EPA-HQ-OAR-2008-0508-0585
Comment Excerpt Number: 17

Comment: In the Subpart NN preamble (3), EPA asks for comments on an approach in which natural gas suppliers would be required to develop facility specific carbon contents. NMGC suggest using an approach based on American Gas Association (AGA) standard measurement protocols.

Response: EPA appreciates this comment. In Subpart NN of the final rule, reporters may calculate the CO_{2e} of the products they report by using EPA default factors provided in the rule, or by developing their own emissions factor by using an appropriate standard test method published by a consensus-based standards organization such as AGA to conduct necessary compositional analysis.

Commenter Name: Patrick J. Nugent
Commenter Affiliation: Texas Pipeline Association (TPA)
Document Control Number: EPA-HQ-OAR-2008-0508-0460.1
Comment Excerpt Number: 43

Comment: If EPA retains the reporting requirements for natural gas processing facilities, EPA should at least allow the use of a default factor so that a given percentage (in the range of 15 to 20 percent) of a company's total NGL production can be used to designate the portion that is used as fuel, with carbon dioxide emissions being calculated based on that volume. Alternatively, actual company data on the fraction of supplied NGL used for fuel could be used for this calculation, at the company's discretion. Failing adoption of the modifications requested above, TPA would support the proposed calculation methodology set forth in proposed § 98.403.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Linda D. Sullivan

Commenter Affiliation: National Grid

Document Control Number: EPA-HQ-OAR-2008-0508-0608.1

Comment Excerpt Number: 10

Comment: Under the proposed rule, National Grid's local distribution companies would be required to report emissions that would result from complete combustion or oxidation of the annual volume of natural gas supplied to customers. Further, the rule proposes that all flow meters shall be calibrated prior to the first reporting year. This proposal unnecessarily complicates the measurement and reporting of these emissions and places a tremendous burden on local distribution companies. National Grid has roughly 3 1/2 million customers and, therefore, roughly 3 1/2 million gas meters currently in use. Calibration of these meters is already regulated through the State Utility Commissions. Besides the Commissions, National Grid also has a vested interest in the accuracy of these meters as it relies on these meters in the operation of its business. To achieve the intended data collection goal, National Grid proposes using the existing natural gas throughput calculation methodology and sales volumes. This would allow for data collection with much less burden on the reporting facility.

Response Please see Sections III.NN.2 and III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Jeff A. Myrom

Commenter Affiliation: MidAmerican Energy Holdings Company

Document Control Number: EPA-HQ-OAR-2008-0508-0581.1

Comment Excerpt Number: 54

Comment: EPA comment on an approach in which natural gas suppliers would be required to develop facility- and batch-specific carbon contents through periodic sampling and analysis (page 16577). MidAmerican believes that the conclusion drawn by EPA is correct. The addition of periodic sampling would add additional cost without improved accuracy of reported emissions. Thus, such periodic sampling and analysis should not be required.

Response: EPA appreciates and agrees with this comment.

Commenter Name: Curtis J. Winner

Commenter Affiliation: New Mexico Gas Company (NMGC)

Document Control Number: EPA-HQ-OAR-2008-0508-0585

Comment Excerpt Number: 16

Comment: In the Subpart NN preamble (3), EPA asks for comments about whether to use the national inventory estimates of CH₄ and N₂O emissions from natural gas combustion, and apportion them to individual natural gas suppliers based on the quantity of their product. NMGC supports using the national inventory estimates of CH₄ and N₂O.

Response: Please see response to comment EPA-HQ-OAR-2008-0508-0635, excerpt 97.

Commenter Name: See Table 2

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0530.1

Comment Excerpt Number: 26

Comment: The Proposed Rule errs by including the reporting of bulk NGLs together with individual NGLs. Bulk NGLs are relatively unprocessed intermediate products in the supply chain for NGLs. Bulk NGLs have no marketable use apart from sale to fractionators and processors, (who separate these substances into individual marketable products such as ethane, propane, etc). Yet, the Proposed Rule requires the reporting of bulk NGLs in addition to the end products that result from further processing of the same unit of fuel – an obvious instance of “double counting” the same unit of emissions. NGC believes that the NGL supplier provisions of Subpart MM and NN are based on fundamental misunderstandings as to the structure and function of the NGL industry. Accordingly, NGC urges EPA to (a) remove bulk NGLs from the reporting requirement and (b) shifting the point of reporting to fractionators (rather than domestic processors), who are in the best position to know the likely end-use of their product.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Karen St. John

Commenter Affiliation: BP America Inc. (BP)

Document Control Number: EPA-HQ-OAR-2008-0508-0631.1

Comment Excerpt Number: 105

Comment: 1. EPA requests comment “on whether or not EPA should use the national inventory estimates of CH₄ and N₂O emissions from natural gas combustion, and apportion them to individual natural gas suppliers based on the quantity of their product.” (p. 16577) NGL's destined for combustion use and hence emissions are a small subset of the entire spectrum and volume of NGL produced. BP requests that EPA change the focus for reporting of NGL's to odorized propane, butane, or mixed propane/butane from fractionation facilities or blenders as these represent the only sources of NGL's destined for fuels. Given the small role that CH₄ and N₂O play in combustion CO₂ equivalents (<1%) we do not believe that apportioning CH₄ and N₂O is necessary and simply adds burden with no value. 2. EPA requests “comment on an approach in which natural gas suppliers would be required to develop facility- and batch-specific carbon contents through periodic sampling and analysis.” (p. 16577) As BP commented earlier in this document, NGL's destined for combustion use and hence emissions are a small subset of the entire spectrum and volume of NGL produced. BP has suggested that EPA change the focus for reporting of NGL's to odorized propane, butane, or mixed propane/butane from fractionation facilities or blenders as these represent the only sources of NGL's destined for fuels. Given this perspective, BP believes there is no value in facility or batch- specific carbon content analysis and/or information.

Response: Please see Preamble section III.NN.2 and section III.NN.3. For a response to apportioning CH₄ and N₂O emissions, see response to comment EPA-HQ-OAR-2008-0508-0635, excerpt 97.

Commenter Name: Skiles W. Boyd
Commenter Affiliation: DTE Energy
Document Control Number: EPA-HQ-OAR-2008-0508-0606.1
Comment Excerpt Number: 12

Comment: In reference to calculating the volume of natural gas delivered to customers and the frequency of measurement and meter calibration, EPA should allow existing industry based standards. As articulated in AGA's comments on the subject, these practices are strictly regulated by public utility commissions. These measurements and calibrations are very important to the industry as this forms the basis for its revenues. DTE Energy typically checks 5 – 7 % of customer's meters on an annual basis as regulated by the Michigan Public Service Commission.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: None
Commenter Affiliation: Vectren Corporation
Document Control Number: EPA-HQ-OAR-2008-0508-0597
Comment Excerpt Number: 12

Comment: Gas utilities have an incentive to ensure that their billing meters are accurate and do not short change them; stakeholders involved in negotiating consensus industry measurement standards ensure that the methods used to measure and bill for natural gas are accurate; and state utility commissions regulate the frequency of meter calibration. EPA can obtain good quality data by relying on the procedures used to measure natural gas deliveries and calibrate meters for billing purposes. In addition, inspection and testing of natural gas billing meters is currently overseen by public utility commissions such as the Indiana Utility Regulatory Commission, and there is no need to layer on unnecessary and costly oversight

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: See Table 2
Commenter Affiliation:
Document Control Number: EPA-HQ-OAR-2008-0508-0530.1
Comment Excerpt Number: 25

Comment: EPA's proposed approach to estimating the upstream carbon content of natural gas liquids (NGLs) will yield misleading data by counting the same unit of NGL multiple times as it travels down the supply chain, and counting combustion emissions from NGLs that are almost certain to have non-combustive uses. To elaborate, the proposed Subparts MM and NN would require the reporting of GHG emissions that would result from the combustion of all NGLs imported into the United States, as well as the reporting of potential combustion-related emissions of all NGLs (including bulk NGLs) produced by domestic processing facilities. These requirements introduce two severe inaccuracies. First, as EPA's own Technical Support Document for Natural Gas Distribution and Natural Gas Processing acknowledges, between 69.2% and 75.3% of all NGLs sold in the United States each year have non-fuel uses. Indeed, many individual NGL products are almost entirely used as industrial inputs for other products such as carpeting and plastics, and thus do not result in combustion-related GHG emissions. The Proposed Rule makes no attempt to discern between individual NGLs or their distinct end-uses,

making it certain that the Proposed Rule will considerably overstate GHG emissions attributable to NGLs.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment. Also, see Preamble section II.D and comment response document volume 1 for a response to comment about seeking data from both upstream and downstream sources.

Commenter Name: Helen A. Howes

Commenter Affiliation: Exelon Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0373.1

Comment Excerpt Number: 17

Comment: Exelon recommends EPA uses Energy Information Administration data on natural gas distribution and consumption rather than requiring local distribution companies to report on end user data. Under the proposed rule, local distribution companies are required to report on the quantities of natural gas they deliver to categories of customers and to report any customer that uses more than the specified amount of natural gas. As acknowledged by EPA in the Preamble, the EIA already collects and publishes much of this information from natural gas companies including the quantity delivered to the four categories of customers required by the rule. In addition, the EIA reports include information on the interstate transmission of the natural gas, quantification of lost gas, and the amount of natural gas consumed by vehicles. These data can be sorted by company, state or month and year. Because this information is already collected, checked and maintained by the EIA, we recommend EPA use this data set rather than require local distribution companies to report the information to both agencies. In addition, as the EIA's natural gas consumption data is listed by category, it does not identify specific end users consuming over a certain threshold, and as such, does not conflict with customer confidentiality and privacy regulations, nor does it raise competitiveness concerns. Exelon believes it is inappropriate to require the local distribution companies to report information with this level of detail.

Response: See response to comment EPA-HQ-OAR-2008-0508-0460.1, excerpt 42.

Commenter Name: Michael Bradley

Commenter Affiliation: The Clean Energy Group (CEG)

Document Control Number: EPA-HQ-OAR-2008-0508-0479.1

Comment Excerpt Number: 18

Comment: EPA is proposing that natural gas LDCs report CO₂ emissions directly to EPA on an annual basis. LDCs would be required to report total CO₂ emissions, based on the volume of fuel delivered to the economy and the emissions associated with the complete oxidation of that volume of fuel. The Clean Energy Group agrees with this approach as it aligns with existing data reporting requirements to other federal and state agencies. However, the Clean Energy Group questions the necessity of LDCs reporting this data to EPA, given that this data is already required to be reported to the Energy Information Administration. If EPA maintains this provision, the Clean Energy Group strongly urges EPA to ensure that LDCs may use the EIA submission for this requirement; i.e., EPA should ensure the reporting requirements and data formats are the same.

Response: See response to comment EPA-HQ-OAR-2008-0508-0460.1, excerpt 42.

Commenter Name: Kathleen M. Sgamma

Commenter Affiliation: Independent Petroleum Association of Mountain States (IPAMS)

Document Control Number: EPA-HQ-OAR-2008-0508-0521.1

Comment Excerpt Number: 33

Comment: IPAMS supports EPA's proposal to refrain from requiring periodic sampling/analysis of the carbon content of natural gas and natural gas liquids. BTU data should be sufficient to supply information about the carbon content of natural gas and natural gas liquids due to the acknowledged close correlation between carbon content and the BTU value of natural gas and natural gas liquids. To otherwise require periodic sampling and analysis would impose unnecessary costs on facilities but would not result in improved accuracy of reported emissions values.

Response: EPA agrees with this comment.

Commenter Name: Helen A. Howes

Commenter Affiliation: Exelon Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0373.1

Comment Excerpt Number: 19

Comment: Exelon supports the use of BTU values for natural gas rather than requiring natural gas suppliers or consumers to sample and analyze the gas to determine the carbon content. We agree with EPA that the BTU information is readily available and is closely linked to the carbon content. Requiring sampling would place a burden on the reporters without adding value to the collected data.

Response: EPA agrees with this comment.

Commenter Name: Pamela F. Faggert

Commenter Affiliation: Dominion

Document Control Number: EPA-HQ-OAR-2008-0508-1741

Comment Excerpt Number: 42

Comment: The proposed rule does not recognize that some NGLs have non-fuel uses, such as use as raw materials in chemical manufacturing processes, that do not result in combustion-related GHG emissions. The assumption that all NGL products enter into some type of combustion/GHG emission-generation will overstate GHG emissions. EPA should limit reporting of NGLs from processing facilities to volumes that are used for combustion purposes.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Pamela F. Faggert

Commenter Affiliation: Dominion

Document Control Number: EPA-HQ-OAR-2008-0508-1741

Comment Excerpt Number: 44

Comment: EPA should clarify §98.404 to require that natural gas companies measure the throughput as is normally done for billing purposes using industry consensus based standards for measurement and meter calibration, rather than using a new auditing system or requiring "daily totals of continuous measurements" or immediate calibration of all meters. Relying on the calibration schedule used for billing purposes will negate the need to calibrate all flow meters prior to the first reporting year, which would be a difficult task.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

5. DETAILED GHG EMISSION CALCULATION PROCEDURES/EQUATIONS IN THE RULE

Commenter Name: Thomas M. Kiley

Commenter Affiliation: Northeast Gas Association (NGA)

Document Control Number: EPA-HQ-OAR-2008-0508-0558.1

Comment Excerpt Number: 3

Comment: The proposed rule provides formulas (e.g. NN-1 and NN-2) for calculating the CO₂ emissions using either a measured or default CO₂ emissions factor. There are currently field projects underway to derive new emissions factors for natural gas distribution companies. Flexibility should be built into the rule to provide for updates when new emission factors become available.

Response: EPA will update Subpart NN in future rulemakings with improved emission factors as they become available, to the extent practical and possible.

Commenter Name: Thomas M. Kiley

Commenter Affiliation: Northeast Gas Association (NGA)

Document Control Number: EPA-HQ-OAR-2008-0508-0558.1

Comment Excerpt Number: 4

Comment: There is a need to review whether the emission calculation equations assume standard temperature and pressure for carbon in gas or actual temperature and operating pressures. This review is necessary because emissions may be overestimated for some facilities based on the given assumption.

Response: EPA agrees with this comment. In Subpart NN of the final rule, we have provided clarification on standard temperature and pressure assumptions for measurements, adopting the common assumptions used in the natural gas pipeline industry.

6. MONITORING AND QA/QC REQUIREMENTS

Commenter Name: Paul R. Pike

Commenter Affiliation: Ameren Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0487.1

Comment Excerpt Number: 20

Comment: Under Subpart NN of the proposed rule, local distribution companies would be required to report their CO₂ emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas provided to end-users. In calculating the volume of natural gas delivered, EPA proposes in § 98.404(a) to determine the quantity using meter test methods in common use and consistent with AGA Gas Measurement Committee Reports. Ameren urges you to revise 98.404(b) and (c) and allow the use of AGA Gas Measurement Committee Reports for the frequency of measurement and meter. EPA should clarify § 98.404 to require that natural gas companies measure the throughput as is normally done for billing purposes using industry consensus based standards for measurement and meter calibration, rather than using a new auditing system or requiring "daily totals of continuous measurements" or immediate calibration of all meters. We have a strong economic interest in ensuring that these meters are accurate and do not under-report the quantity of natural gas delivered to customers for end use combustion. There is no need to impose additional requirements to ensure the accuracy of the natural gas measurements and calibration practices used beyond those used for billing purposes. Relying on the calibration schedule used for billing purposes will negate the need to calibrate all flow meters prior to the first reporting year, which would be physically impossible due to manpower and cost constraints.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Bert Kalisch

Commenter Affiliation: American Public Gas Association (APGA)

Document Control Number: EPA-HQ-OAR-2008-0508-0403.1

Comment Excerpt Number: 2

Comment: In section 98.404(c) of the Proposed Rule, EPA proposes to require that "all flow meters and product or fuel composition monitors shall be calibrated prior to the first reporting year, using a suitable method published by the American Gas Association Gas Measurement Committee reports on flow metering and heating value calculations and the Gas Processors Association standards on measurement and heating value. Alternatively, calibration procedures specified by the flow meter manufacturer may be used. Fuel flow meters shall be recalibrated either annually or at the minimum frequency specified by the manufacturer." For natural gas utilities, this requirement is both impossibly onerous and unnecessary. It would require that the gas billing meter at each of the approximately 68 million natural gas customers be calibrated before 2010. This would place an impossible burden on gas utilities. Calibrating a gas billing meter typically involves replacing the customer's existing meter with another meter that has been calibrated by the manufacturer or in the utility's meter shop. Calibrating a gas meter involves passing a known quantity of air or gas through the meter and comparing the meter reading with the known volume. The temperature and pressure of the gas passing through the meter must be

carefully controlled. The specialized equipment used for this purpose is called “meter provers.” Only a finite number of meter provers exists, and many utilities do not have the capability to calibrate meters in-house. Utilities have a vested interest in maintaining the accuracy of gas billing meters. Utilities bill customers and are paid by customers based on readings of these meters. State public utility commissions have regulations regarding the frequency that utilities subject to utility commission jurisdiction must periodically change out and calibrate gas billing meters. Policies vary from fixed intervals (e.g., every 15 years) to statistical sampling of the various makes and models of gas meters. In no case have utilities been ordered to recalibrate every gas billing meter in a single calendar year. Public gas systems, while not subject to utility commission regulations in most states, typically have similar programs to ensure gas billing meter accuracy. Since public gas systems are owned and operated by government entities such as cities, towns, villages, counties and utility districts, public gas system meter accuracy policies are also overseen by governmental authorities. The important point is that it is in the financial interest of the utility to ensure that its gas billing meters are accurate because a utility’s revenue is based on accurate gas billing meter readings.

In addition heating value calculations are typically provided by the pipeline supplier(s) of gas to the local utility. The pipeline is typically responsible for the calibration of this equipment under terms laid out in the custody transfer contract between the pipeline and the utility, which may provide the utility the right to observe the calibration process. Once again, there is a financial interest on the part of both the pipeline and the utility to ensure that the heating value is accurately measured. EPA need not impose detailed QA/QC requirements to ensure the accuracy of this measurement equipment. Elsewhere in the Proposed Rule EPA has recognized that differing treatment is justified for the calibration of gas billing meters. In Subpart C--General Stationary Fuel Combustion Sources, EPA proposes to exempt gas billing meters from the initial meter calibration requirements.³ We urge EPA to exempt gas billing meters operated by natural gas distribution utilities from both the initial and ongoing calibration requirements of this rule.

Response: Please see Sections III.NN.1 and III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Curtis J. Winner
Commenter Affiliation: New Mexico Gas Company (NMGC)
Document Control Number: EPA-HQ-OAR-2008-0508-0585
Comment Excerpt Number: 12

Comment: Section 98.404 (c) states that all flow meters and product or fuel composition monitors must be calibrated prior to 2010 and recalibrated annually. This requirement far exceeds industry standards. LDCs may have millions of flow meters that meter gas to each and every customer. It would be impossible to calibrate all the flow meters annually. The regulations should reflect the calibration methods and time lines defined or accepted by the applicable State public utility commission for the LDC.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Curtis J. Winner
Commenter Affiliation: New Mexico Gas Company (NMGC)
Document Control Number: EPA-HQ-OAR-2008-0508-0585

Comment Excerpt Number: 13

Comment: Section 98.404 (d) states that higher heating values will be determined using industry standard practices. NMGC suggests using chromatology C6+ to determine higher heating values.

Response: EPA concludes that the commenter meant “chromatography C6+.” Subpart NN of the final rule allows reporters to use an appropriate standard test published by a consensus-based standards organization for measuring HHV. Chromatography of C6+ would meet this requirement.

Commenter Name: None

Commenter Affiliation: Vectren Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0597

Comment Excerpt Number: 10

Comment: Under Part 98, Subpart NN of the proposed rule, local distribution companies would be required to report their CO₂ emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas provided to end-users. In calculating the volume of natural gas delivered, EPA proposes in section 98.404(a) to determine the quantity using meter test methods in common use and consistent with AGA Gas Measurement Committee Reports. Vectren would similarly urge EPA to use a similarly pragmatic approach for the frequency of measurement and meter calibration by revising 98.404(b) and (c) to follow normal practices for measurement practices and calibration frequency, under applicable AINSI or AGA Gas Measurement Committee Reports. EPA should clarify section 98.404 to require that natural gas companies measure the throughput as is normally done for billing purposes using industry consensus based standards for measurement and meter calibration, as audited under existing Sarbanes Oxley regulations, rather than using a new auditing system or requiring “daily totals of continuous measurements” or immediate calibration of all meters. The majority of the natural gas billing meters are manually read on a bi-monthly basis.

Response: EPA appreciates and agrees with this comment. Please see Sections III.NN.2 and III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Steve Donatiello

Commenter Affiliation: Laclede Gas Company

Document Control Number: EPA-HQ-OAR-2008-0508-0763.1

Comment Excerpt Number: 9

Comment: Laclede notes that part 40 CFR 98.404(c) of the rule requires initial calibration of all meters. Laclede further notes that 40 CFR 98.34, Monitoring and QA/QC requirements, provides an exemption for gas billing meters. Laclede recommends that this exemption also be clearly spelled out at 40 CFR 98.404(c). Laclede strongly concurs with EPA as to the appropriateness of this exemption. The gas meter represents the LDC’s source of revenue. Not only is it in the financial best interest of LDC’s to assure accurate customer meter readings, stringent meter calibration regimens are already mandated by state utility regulatory authorities. Meter calibration may be prescribed on a frequency basis or on a statistical sampling basis. In either case, there is already a strong regulatory framework in place to ensure accuracy of gas metering, and EPA should not impose an additional, overriding requirement on gas operations heavily

regulated under 49 CFR Part 192 and corollary state utility regulations. The cost and inconvenience of this to customers would be staggering and would not result in statistically, significantly improved metering accuracy. The widening prevalence of electronic “automatic meter reading” (AMR) devices further assures that customer meters are reading accurately. When readings fall out of normal tolerance, these are almost immediately detected. Other types of flow meters, whether for petroleum products, liquid propane and the like, should be viewed similarly. It is certainly in the financial interests of both the delivering and receiving parties that product measurement be accurate. Recalibration of liquid fuel flow meters should need only be at the frequency specified by the manufacturer or as required by respective federal DOT, FERC or state utility regulatory authorities. EPA should not impose additional, overriding criteria as to frequency of flow meter calibration.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: See Table 5

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0709.1

Comment Excerpt Number: 18

Comment: Under Part 98, Subpart NN of the proposed rule, local distribution companies would be required to report their CO₂ emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas provided to end-users. In calculating the volume of natural gas delivered, EPA proposes in section 98.404(a) to determine the quantity using meter test methods in common use and consistent with AGA Gas Measurement Committee Reports. We appreciate this pragmatic approach. We urge you to use a similarly pragmatic approach for the frequency of measurement and meter calibration under by revising 98.404(b) and (c) to follow normal practices for measurement practices and calibration frequency, under applicable ANSI or AGA Gas Measurement Committee Reports.

Response: EPA appreciates and agrees with this comment. Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Wesley L. McNealy

Commenter Affiliation: Pepco Holdings, Inc. (PHI)

Document Control Number: EPA-HQ-OAR-2008-0508-0547.1

Comment Excerpt Number: 13

Comment: EPA should clarify §98.404 to require that natural gas companies measure the throughput as is normally done for billing purposes using industry consensus based standards for measurement and meter calibration, as audited under existing Sarbanes-Oxley regulations, rather than using a new auditing system or requiring "daily totals of continuous measurements" or immediate calibration of all meters.

Response: EPA appreciates and agrees with this comment. Please see Sections III.NN.2 and III.NN.3 of the Preamble for a response to this comment.

Commenter Name: See Table 5

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0709.1

Comment Excerpt Number: 20

Comment: Customer meters are the equivalent of “cash registers” for our industry. Gas utilities have a strong economic interest in ensuring that these meters are accurate and do not under-report the quantity of natural gas delivered to customers for end use combustion. In addition, inspection and testing of natural gas billing meters are regulated by state public utility commissions (PUCs). Some state PUCs require calibration at fixed intervals (such as every 15 years), while most others direct utilities to take a statistical sampling of the various makes and models of gas meters for purposes of determining when to replace the units with new meters. No PUC has ever ordered a utility to recalibrate every customer meter in a single year, or to recalibrate annually. Calibrating a gas utility customer’s meter typically involves replacing the customer’s existing meter with another meter that has been calibrated by the manufacturer or in the utility’s meter shop. Calibrating a gas utility billing meter involves passing a known quantity of air or gas through the meter and comparing the meter reading with the known volume. The temperature and pressure of the gas passing through the meter must be carefully controlled. Specialized equipment called “meter provers” are used for this purpose, and there are not enough meter provers in existence to calibrate nearly 70 million billing meters by January 2010 or annually thereafter. In addition, many utilities do not have the capability to calibrate meters in-house, and must contract out for this work. Even if there were enough meter provers and contractors available, annual recalibration should not be required because it would impose exorbitant costs on natural gas utilities and their customers, as we explain below in our discussion of EPA’s economic impact analysis. Finally, there is no need to impose additional requirements to ensure the accuracy of the natural gas measurements and calibration practices used beyond those used for billing purposes. Relying on the calibration schedule used for billing purposes will negate the need to calibrate all flow meters prior to the first reporting year, which would be a monumental and truly unachievable feat, given that our members maintain nearly 70 million customer billing meters across the country. There is no physical way that all of these meters could be calibrated in the next six months (before the start of 2010), even if it were cost effective to do so, which it is not. EPA can avoid this inadvertent and unnecessary burden by inserting the phrase “(except gas billing meters)” in section 98.404(c) so that the section would state: “(c) All flow meters (except gas billing meters) ... shall be calibrated prior to the first billing year... Fuel flow meters (except gas billing meters) shall be recalibrated either annually or at the minimum frequency specified by the manufacturer.” The agency used this exception in 98.34(d)(1) to exempt natural gas billing meters from having to be calibrated prior to the first year of reporting using the Tier 3 calculation methodology. We urge EPA to make a conforming change in section 98.404(c) to clarify that there is no need to calibrate natural gas billing meters prior to the first reporting year. In addition, we urge the agency not to require -- in either section 98.34(d)(1) or 98.404(c) -- annual recalibration of gas billing meters, because it is not feasible or necessary to calibrate over 70 million natural gas billing meters every year.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Curtis J. Winner

Commenter Affiliation: New Mexico Gas Company (NMGC)

Document Control Number: EPA-HQ-OAR-2008-0508-0585

Comment Excerpt Number: 11

Comment: In Section 98.404 (b), the regulations say that the minimum frequency of measurements of quantity must be daily totals of continuous measurements and summed to the annual reportable volume. LDCs do not record the quantity of gas delivered to residential end users on a daily basis. The sale of gas is measured monthly with the reading of all the residential meters. Daily summary requirements far exceed industry standards for residential measurement.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Cecil I. Wright

Commenter Affiliation: Iowa Utilities Board (IUB)

Document Control Number: EPA-HQ-OAR-2008-0508-0543

Comment Excerpt Number: 1

Comment: The IUB has concerns about the requirement that “All flow meters and product or fuel composition monitors shall be calibrated prior to the first reporting year“ and “recalibrated either annually or at the minimum frequency specified by the manufacturer”. There does not appear that a rationale for establishing this requirement in the Preamble and the IUB believes this requirement could be interpreted to create an undue burden and cost on LDCs. The use of the term “flow meters” could be construed to mean that all the natural gas customer meters owned by an LDC would be required to be calibrated prior to the first reporting year and then possibly each year thereafter. This requirement applied to all LDCs in the nation would create an impossible burden of testing many millions of gas meters. Under current regulatory standards, state public utility commissions (including the IUB) commonly have adopted standards for meter testing frequency and acceptable accuracy that meet manufacturers specifications. IUB rules, 199 IAC 19.6(476), require each LDC to have a written program for the inspection and testing that is based upon the utility’s experience, manufacturer’s recommendations, and accepted good practice. Testing and calibration follow the standards established in the American National Standard for Diaphragm Type Gas Displacement Meters, (Over 500 Cubic Feet Per Hour Capacity), ANSI B 109.1-2000, ANSI B109.2-2000; the American National Standard for Rotary Type Gas Displacement Meters, ANSI B1 09.3-2000; Measurement of Gas Flow by Turbine Meters, ANSI/ASME MFC-4M-1 986(R1 997); and Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids, API MPMS Chapter 14.3, Parts 1-4. The IUB believes that absent some showing that meter inaccuracy under the current regulatory procedures is so widespread that it would threaten the accuracy of greenhouse gas data collection, the requirement for all meters to be calibrated in the year prior to reporting is unnecessary and the cost would far outweigh any benefit gained.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Cecil I. Wright

Commenter Affiliation: Iowa Utilities Board (IUB)

Document Control Number: EPA-HQ-OAR-2008-0508-0543

Comment Excerpt Number: 2

Comment: The second concern is whether the term “flow meters” is intended to include those meters measuring the gas delivered to LDCs. Flow meters measuring delivery of natural gas to the LDCs are typically owned by the interstate pipeline company and not the LDC. The IUB

believes it would be rare for an LDC to meter the gas a second time at the interstate pipeline delivery point, and proposed rule §98.405(c), which would allow the LDC to use delivery pipeline meter records in lieu of its own, recognizes this probability. However, the LDC would not be in a position to require the delivering pipeline to conduct meter tests. So in addition to the absence of identified need for these rules to address meter testing, they may also be asking LDCs to be responsible for testing of equipment which they neither own nor control.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment.

Commenter Name: Cecil I. Wright

Commenter Affiliation: Iowa Utilities Board (IUB)

Document Control Number: EPA-HQ-OAR-2008-0508-0543

Comment Excerpt Number: 3

Comment: The third concern involves the proposed requirement in § 98.404(c) that could be interpreted to require all "product or fuel composition monitors" to be calibrated prior to the first reporting year and recalibrated annually or at the minimum frequency specified by the manufacturer thereafter. There does not appear to be a rationale for this requirement in the Preamble although the Preamble at page 16577 states that these rules do not propose requiring that LDCs sample and analyze natural gas. The IUB believes that it would be rare for an LDC to determine gas composition or heating value (Btu/MMCF). Typically that information is determined and provided by the pipeline supplier. Just as proposed rule §98.405(c) would allow the LDC to use delivery pipeline meter records in lieu of its own, if a LDC needs gas composition or heating value to comply with these rules, it should be allowed to use data provided by the delivering pipeline. However, the IUB would recommend that LDCs not be burdened with testing and calibration gas composition monitoring equipment they do not own or control.

Response: EPA appreciates this comment and has reflected it in the final rule. Subpart NN of the final rule allows an LDC that does not make its own measurements of HHV according to established business practices to use measurements from its delivering pipeline. The same allowance is made for volume measurement. Regarding CO₂ emissions factors, an LDC must either use the default factor provided in the rule or ensure that an appropriate standard test method published by a consensus-based standards organization is used to conduct the necessary compositional analysis. Therefore, the LDC can use a factor provided by its delivering pipeline as long as it can report to EPA the standard used to conduct the analysis. In Subpart NN of the final rule, an LDC must also report the method used to measure volume, whether the measurement was made by the LDC or by its delivering pipeline. We require reporting on test methods used because EPA has determined this to be the best way to ensure accurate measurements across all reporters while minimizing burden. See Preamble Section III.NN.3 for a response to comments related to meter calibration frequencies.

Commenter Name: Thomas M. Kiley

Commenter Affiliation: Northeast Gas Association (NGA)

Document Control Number: EPA-HQ-OAR-2008-0508-0558.1

Comment Excerpt Number: 2

Comment: Under Part 98, Subpart NN of the proposed rule, local distribution companies would be required to report their CO₂ emissions that would result from the complete combustion or

oxidation of the annual volumes of natural gas provided to end-users. In calculating the volume of natural gas delivered, EPA proposes in section 98.404(a) to determine the quantity using meter test methods in common use and consistent with AGA Gas Measurement Committee Reports. Like AGA, we appreciate this pragmatic approach. We also urge EPA to clarify section 98.404 to require that natural gas companies measure the throughput as is normally done for billing purposes using industry consensus based standards for measurement and meter calibration, as audited under existing Sarbanes-Oxley regulations, rather than using a new auditing system or requiring “daily totals of continuous measurements” or immediate calibration of all meters. There is no need to impose additional requirements to ensure the accuracy of the natural gas measurements and calibration practices used beyond those used for billing purposes.

Response: Please see Sections III.NN.2 and III.NN.3 of the Preamble for a response to this comment.

Commenter Name: See Table 3

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0679.1

Comment Excerpt Number: 246

Comment: The Agency takes a different but more effective approach in Sec. 98.404, (Subpart NN Natural Gas and Natural Gas Liquids) in the monitoring and QA/QC requirements for suppliers of natural gas and NGLs versus those provided in Subpart MM. In Subpart NN, EPA relies on “using any of the oil and gas flow meter test methods that are in common use in the industry and consistent with the Gas Processors Association Technical Manual and the American Gas association Gas Measurement Committee reports.” This construction still has the problem that it limits the reporter to a very restricted set of standards from amongst several well respected organizations, but it does not trap the Agency into a role of specifying details that are not critical to the proposed rule’s mission. [Page 16721] Sec. 98.404 (NN) is a more readily implemented as written than Subpart MM, but it does have a problem in that it specifies two particular industry standards organizations out of several technically acceptable choices, and it presents methods for handling missing data which will eventually conflict with the quantities reported for other quality assured purposes. Specific revisions are suggested below. Sec. 98.404 Monitoring and QA/QC requirements. (a) The quantity of natural gas liquids and natural gas must be as recorded in the company’s financial records and determined using any of the oil and gas flow meter test methods that are in common use in the industry and consistent with the Gas Processors Association (GPA), the American Gas Association (AGA), the American Petroleum Institute (API), ASTM International (ASTM), the American Society of Mechanical Engineers (ASME), or other industry consensus organizations. (b) The minimum frequency of the measurements of quantities of natural gas liquids and natural gas shall be based on the company’s standard practices for commercial operations. For natural gas liquids, these are measurements taken at custody transfers summed to the annual reportable volume. For natural gas, these are daily or more frequent totals of continuous measurements, and summed to the annual reportable volume. (c) All flow meters and product- or fuel-composition monitors shall be calibrated or verified using a suitable method published by an industry consensus organization or the equipment manufacturer. Fuel flow meters or fuel composition monitors shall be recalibrated or reverified at an interval reflecting good commercial practice. (d) Reporter-specific emission factors or higher heating values shall be determined using industry standard practices such as, but not limited to, the American Gas Association (AGA), and the Gas Processors Association (GPA); and ASTM International (ASTM) for compositional analysis necessary for estimating CO₂ emission factors.

Response: Upon review, EPA agrees that the list of standards organizations that was included in the proposal for Subpart NN was incomplete. In Subpart NN of the final rule, EPA has broadened the scope of standards that companies may use to take the measurement required by the rule. The quantity of NGLs and natural gas must be determined using any of the oil and gas flow meter test methods that are in common use in the industry for billing purposes as audited under existing Sarbanes Oxley regulations, and consistent with consensus-based standards organizations including, but not limited to, the following: Gas Processors Association (GPA), American Gas Association (AGA), American Petroleum Institute (API), ASTM International (ASTM), and American Society of Mechanical Engineers (ASME). Reporter specific HHV must also be determined using an appropriate standard test published by a consensus-based standards organization. See preamble Section III.NN.3 for our response to other comments on metering.

Commenter Name: See Table 5

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0709.1

Comment Excerpt Number: 19

Comment: EPA should clarify section 98.404 to require that natural gas companies measure their gas deliveries as is normally done for billing purposes using industry consensus based standards for measurement and meter calibration, as audited under existing Sarbanes-Oxley regulations, rather than using a new auditing system or requiring “daily totals of continuous measurements” or immediate calibration of all meters. The majority of the natural gas billing meters are manually or electronically read on a monthly or bi-monthly basis. Obtaining daily totals would first require installing automatic continuous read meter reading devices on millions of meters. This would be a costly endeavor that must be approved by the local public utility commission and could not be accomplished in the time contemplated under the proposed rule. It is also unnecessary.

Response: Please see Section III.NN.3 of the preamble for a response to this comment.

7. DATA REPORTING REQUIREMENTS

Commenter Name: Bill Grygar

Commenter Affiliation: Anadarko Petroleum Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0459.1

Comment Excerpt Number: 26

Comment: As an alternative to EPA's proposal, Anadarko suggests that EPA revise the reporting requirement to reflect the fraction of NGL production that is destined to be fuel and that will result in CO₂ emissions. During fractionation, Y-grade mixtures are distilled into five NGL purity products: ethane, butane, iso-butane, propane, and natural gasoline. Ethane's primary use is non-emissive. Butane, iso-butane and natural gasoline can either be used as petrochemical feedstock (a non-emissive use) or blended in petroleum-based liquid fuels. Thus, the only NGL fraction that is combusted as fuel is comprised almost exclusively of propane. This propane fraction is placed into commerce for residential, agricultural, commercial and alternative motor vehicle fuel use, and the law requires propane products to be odorized if used for these purposes. Therefore, Anadarko proposes that EPA impose a requirement that the parties with legal title of

the propane fraction at time of odorization report these emissions to EPA because this fraction is what is ultimately used for fuel. Placing the reporting obligation on the parties with legal title to these propane fractions at the time of odorization will impose a minimal burden on these entities because they already track and report the odorization of propane products under accounting processes established under the Propane Education and Research Act of 1996. Thus, Anadarko's proposed alternative would improve the accuracy of the registry by accounting for the actual CO₂ emissions from the combustion of propane, while reducing the burden imposed on industry.

Response: Please see Preamble section III.NN.3 for a response to this comment. In addition, please see response to comment EPA-HQ-OAR-2008-0508-0412.1, excerpt 34 for a response to seeking data from parties with legal title; and EPA-HQ-OAR-2008-0508-0460.1, excerpt 42 for a response to using data collected under the Propane Education and Research Act.

Commenter Name: Dan F. Hunter

Commenter Affiliation: ConocoPhillips Company

Document Control Number: EPA-HQ-OAR-2008-0508-0515.1

Comment Excerpt Number: 68

Comment: The proposed rule requires annual reporting for natural gas processing plants to include quantities of natural butane, ethane, isobutane and all other bulk NGLs as a single category. In order to protect business confidential information, ConocoPhillips recommends that the volume of these products be reported at the corporate level. Such detail level of reporting per plant can result in business confidential information being compromised.

Response: Please see Preamble section II.F for response to comments on level of reporting and section II.R for discussion of confidential business information (CBI).

Commenter Name: See Table 5

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0709.1

Comment Excerpt Number: 22

Comment: Proposed section 98.406(b)(4) would require natural gas distribution companies to report "the name and EPA and EIA identification code of each individual covered facility, and the name and EIA identification code of any other end user for which the local gas distribution company delivered greater than or equal to 460,000 Mcf during the calendar year, and the total natural gas volumes actually delivered to each of these end users." AGA objects to this on several grounds. First, this would increase our member gas utilities' costs of reporting without improving the data available to EPA. Industrial and large commercial customers that have facilities that combust more than 460,000 Mcf per year and therefore emit more than 25,000 tpy, would already be "covered" and required to report their emissions directly to EPA. We assume that EPA is proposing to require gas utilities to report this duplicative information to assist EPA in detecting violators, but EPA already has plenty of enforcement powers and resources to do this without shifting part of the cost of police work and enforcement to either utility shareholders or other law-abiding residential and commercial consumers. Second, we have no way of knowing whether a particular industrial facility is using the natural gas we deliver for combustion or for non-emitting feedstock. But EPA has the power to require those facilities to disclose that information to the agency, subject to appropriate protection for the confidential

business information (CBI) that might be revealed by knowing how much natural gas is used as feedstock to produce specific types of products. Lastly, while we have the names and addresses of covered facilities, we do not have access to customer EPA or EIA numbers.

Response: Please see Section III.NN.3 of the Preamble for a response to this comment. For a response to comments about confidential business information (CBI), see the Preamble section II.R.

Commenter Name: Paul R. Pike

Commenter Affiliation: Ameren Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0487.1

Comment Excerpt Number: 21

Comment: Proposed § 98.406(b)(4) would require natural gas distribution companies to report "the name and EPA and EIA identification code of each individual covered facility, and the name and EIA identification code of any other end user for which the local gas distribution company delivered greater than or equal to 460,000 Mcf during the calendar year, and the total natural gas volumes actually delivered to each of these end users. " Ameren objects to this on several grounds. First, this would increase our costs of reporting without improving the data available to EPA. Industrial and large commercial customers that have facilities that combust more than 460,000 Mcf per year and therefore emit more than 25,000 tpy, would already be "covered" and required to report their emissions directly to EPA. Second, we have no way of knowing whether a particular industrial facility is using the natural gas we deliver for combustion or for non-emitting feedstock. But EPA has the power to require those facilities to disclose that information to the agency, subject to appropriate protection for the confidential business information (CBI) that might be revealed by knowing how much natural gas is used as feedstock to produce specific types of products.

Response: Please see the response to the comment directly above, comment EPA-HQ-OAR-2008-0508-0709.1, excerpt 22.

Commenter Name: Curtis J. Winner

Commenter Affiliation: New Mexico Gas Company (NMGC)

Document Control Number: EPA-HQ-OAR-2008-0508-0585

Comment Excerpt Number: 14

Comment: Section 9 8.406 (b) lists the information that must be reported. NMGC feels that 98.406 (b)(1) should say "the total annual volume in Mcf of natural gas delivered by LDC to end users..." The way the proposed regulation is worded there will be double counting of the gas combusted at compressor stations and off system sales. Similarly, 98.406 (b)(3) should also say the total volume delivered to downstream gas transmission pipelines and other LDCs. In 9 8.406 (b)(4) it specifies that the LDC must report the EPA and EIA code of each covered facility and of any end users to which the LDC delivered more than 460,000 Mcf of natural gas. NMGC does not know if all NMGC customers who receive more than 460,000 Mcf have an EPA or EIA code. The way the regulation is written it is the responsibility of the LDC to make each customer get an EPA and EIA code so that the LDC can report it. This should not be the responsibility of the LDC. The last item that must be reported [98.406 (b)(5)], is a breakdown of the annual volume in Mcf of natural gas delivered to, and the CO₂ mass emissions associated with each, the following categories: (1) Residential consumers (2) Commercial consumers (3) Industrial

consumers (4) Electricity generating facilities There needs to be clarification of how these categories are defined. There are grey areas between the categories. NMGC suggests breaking down annual volume into two categories instead of four: residential and non residential. In addition, there is the potential for double counting emissions if the LDCs must report volume and emissions from natural gas sold to electricity generating facilities.

Response: Please see Sections III.NN.2 and III.NN.3 of the Preamble for a response to this comment. The rule requires that reporters use the EIA definitions for residential, commercial, industrial, and electricity generation, based upon EIA form 176 and corresponding Instructions.

Commenter Name: Kelly R. Carmichael

Commenter Affiliation: NiSource

Document Control Number: EPA-HQ-OAR-2008-0508-1080.2

Comment Excerpt Number: 37

Comment: In this subpart, EPA is proposing that local distribution companies (LDCs) report CO₂ emissions directly to EPA on an annual basis. LDCs would be required to report total CO₂ emissions, based on the volume of fuel delivered to the economy and the emissions associated with the complete oxidation of that volume of fuel. NiSource agrees with the approach mentioned above as it aligns with existing data reporting requirements to other federal and state agencies. However, NiSource questions the necessity of LDCs reporting this data to EPA, given that this data is already required to be reported to the Energy Information Administration. If EPA maintains this provision, NiSource strongly urges EPA to ensure that LDCs may use the EIA submission for this requirement; i.e., EPA should ensure that the reporting requirements and data formats are the same.

Response: Please see response to comment EPA-HQ-OAR-2008-0508-0460.1, excerpt 42.

Commenter Name: See Table 4

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0412.1

Comment Excerpt Number: 35

Comment: GPA supports EPA's proposal to refrain from requiring periodic sampling and analysis of the carbon content of natural gas and NGLs. GPA agrees that there is a close correlation between carbon content and the BTU value of natural gas and NGLs; therefore, BTU data should be sufficient to supply information about the carbon content of natural gas and NGLs. Imposing a requirement to periodically sample and analyze natural gas and NGLs to determine carbon content would impose unnecessary costs on facilities, but would not result in improved accuracy of reported emissions values.

Response: EPA appreciates and agrees with this comment.

Commenter Name: Wesley L. McNealy

Commenter Affiliation: Pepco Holdings, Inc. (PHI)

Document Control Number: EPA-HQ-OAR-2008-0508-0547.1

Comment Excerpt Number: 14

Comment: PHI supports reporting LDC emissions by categories (e.g., residential, commercial, industrial, and electricity generating facilities) without reporting deliveries to individual facilities, provided that EPA includes an exemption for instances where reporting by category would compromise the confidentiality of individual customers (e.g., if there is only one large industrial facility within an LDC's service territory).

Response: Please see Sections III.NN.2 and III.NN.3 of the Preamble for a rationale for seeking limited information on some individual customer meters. In the final rule, EPA continues to require reporting from LDCs by the four customer categories (residential, commercial, industrial, and electricity generating facilities) and has not incorporated the requested confidentiality exemption. For a response to comments about confidential business information (CBI), see the Preamble section II.R.

Commenter Name: Wesley L. McNealy

Commenter Affiliation: Pepco Holdings, Inc. (PHI)

Document Control Number: EPA-HQ-OAR-2008-0508-0547.1

Comment Excerpt Number: 12

Comment: PHI agrees with the approach for local distribution companies (LDCs) to report the volume of fuel delivered to the economy and the emissions associated with the complete oxidation of that volume of fuel as it aligns with existing data reporting requirements to other federal and state agencies.

Response: EPA appreciates and agrees with this comment.

Commenter Name: Bert Kalisch

Commenter Affiliation: American Public Gas Association (APGA)

Document Control Number: EPA-HQ-OAR-2008-0508-0403.1

Comment Excerpt Number: 3

Comment: In Section 98.406(b) of the Proposed Rule, EPA proposes that in addition to the information required by Sec. 98.3(c), the annual report for each local distribution company must contain the following information: “(1) The total annual volume in Mcf of natural gas received by the local distribution company for redelivery to end users on the local distribution company’s distribution system. “(2) The total annual CO₂ mass emissions associated with the volumes in paragraph (b)(1) of this section and calculated in accordance with Sec. 98.403. “(3) The total natural gas volumes received for redelivery to downstream gas transmission pipelines and other local distribution companies. “(4) The name and EPA and EIA identification code of each individual covered facility, and the name and EIA identification code of any other end-user for which the local gas distribution company delivered greater than or equal to 460,000 Mcf during the calendar year, and the total natural gas volumes actually delivered to each of these end-users. “(5) The annual volume in Mcf of natural gas delivered by the local distribution company to each of the following end-use categories. For definitions of these categories, refer to EIA Form 176 and Instructions. [emphasis added] “(i) Residential consumers. “(ii) Commercial consumers. “(iii) Industrial consumers. “(iv) Electricity generating facilities. “(6) The total annual CO₂ mass emissions associated with the volumes in paragraph (b)(5) of this section and calculated in accordance with Sec. 98.403.” Since utilities are already reporting to the Federal government via Energy Information Agency (EIA) Form 176 the annual volume of natural gas delivered to each

of these end-use categories, EPA should obtain this data from EIA rather than require the same data to be reported again. The EIA data list higher heating value, enabling EPA to estimate carbon dioxide emissions using Equations NN-1 or NN-2. The only information requested by EPA that is not already collected by EIA would be in response to paragraph §98.406(b)(4) for facilities receiving more than 460,000 Mcf from the utility. As noted below, under this proposal EPA will obtain that information directly from the affected facilities. EPA proposes that utilities report the name and EPA and EIA identification code of each individual covered facility, and the name and EIA identification code of any other end-user for which the local gas distribution company delivered greater than or equal to 460,000 Mcf during the calendar year. This is unnecessary as the natural gas delivered to industrial customers and for electric generation will already be reported to EPA under this rule by those facility owners. APGA is concerned that such redundant reporting, in addition to being unduly burdensome, may result in double counting those carbon dioxide emissions. In addition, the utility may not know the EPA and EIA identification codes for these customers. The utility may not know whether the gas is burned, in which case carbon dioxide is produced, or used as a chemical feedstock, in which case carbon dioxide is not produced. Further, natural gas use may be considered confidential business information by some industrial customers. The Paperwork Reduction Act of 1995 (44 U.S.C. §§ 3501 et seq.) seeks to minimize the paperwork burden resulting from the collection of information by or for the Federal Government. Furthermore it seeks to ensure the greatest possible public benefit from and maximize the utility of information created, collected, maintained, used, shared and disseminated by or for the Federal Government. The information on natural gas sales is the same information already collected by the EIA in EIA Form 176. In fact, as shown above EPA references EIA Form 176 definitions in this Proposed Rule. In the spirit of the Paperwork Reduction Act and for the other reasons noted above, APGA urges EPA to obtain the natural gas sales information from EIA rather than require utilities to report the same information that is already reported by the affected facility.

Response: For a response to obtaining data from EIA, see response to comment EPA-HQ-OAR-2008-0508-0460.1, excerpt 42. For a response to collecting individual customer data, please see Preamble section III.NN.3.

For a response to the comment about the Paperwork Reduction Act, please see the separate response to comment document Volume 7 "the rule development process, statutory and executive order reviews, and other miscellaneous comments"; please also see Preamble Section VIII and/or RIA section 7.2.

8. COST DATA

Commenter Name: None

Commenter Affiliation: Vectren Corporation

Document Control Number: EPA-HQ-OAR-2008-0508-0597

Comment Excerpt Number: 11

Comment: Obtaining daily totals would first require installing automatic meter reading devices on hundreds of thousands of meters on the Vectren system. This would be a costly endeavor and could not be accomplished in the time contemplated under the proposed rule. Estimates have the projected cost to upgrade daily metering could run between \$75-\$ 175 dollars per meter. The cost to calibrate each residential meter could be \$60 to \$80 per meter. Given that there are over

900,000 natural gas billing meters, the total for Vectren customers could run into the tens of millions of dollars. There is no guarantee that the full cost of measuring GHG emissions will be allowed in a rate proceeding. This may force natural gas utilities to file a rate case to recover these costs when they would have otherwise been able to avoid a rate case proceeding. This could cause financial stress for utilities that do not receive full recovery or where there is a significant delay in recovering these costs. Further, there is no need to impose these costs.

Response: EPA has provided precise language in Subpart NN of the final rule to remove any confusion about monitoring and quality assurance requirements. Please see Section III.NN.3 of the Preamble. We have reviewed the cost impacts of the clarified monitoring and quality assurance requirements and have determined that the costs will be consistent with the RIA.

Commenter Name: See Table 5

Commenter Affiliation:

Document Control Number: EPA-HQ-OAR-2008-0508-0709.1

Comment Excerpt Number: 23

Comment: EPA has estimated that 13,205 entities across all sectors would be covered by the reporting rule, and that the total costs these entities would incur to comply with the rule would be \$160 million for the first year and \$127 million for subsequent years. See Regulatory Impact Analysis for the Mandatory Reporting of Greenhouse Gas Emissions Proposed Rule, Final Report (March 2009) (RIA) at page 8-2. The RIA estimates that Oil and natural gas systems would incur sector-wide costs of \$33 million in the first year and \$28 million per year in subsequent years. For “other sectors” -- including natural gas utilities reporting the volumes of natural gas delivered to customers – the RIA estimates reporters will incur less than \$9 million per year. RIA at 8-2. The RIA vastly understates the cost of compliance for natural gas utilities, particularly if EPA does not delete the requirements for daily metering and for calibrating all meters before the first reporting period and annually thereafter. For AGA member companies, cost will vary depending on whether a company is strictly a local distribution company or has transmission, storage or other facilities that meet the reporting threshold. Some member companies have projected their upgrade cost to accomplish daily metering would be \$150 to \$175 per meter. The cost to calibrate each residential meter could be \$60 to \$80 per meter. Given that there are nearly 70 million natural gas billing meters, it is clear that these costs will far exceed the total private sector costs EPA has projected. For a single mid-sized AGA member company with 700,000 meters, the total costs associated with the daily metering and annual calibration requirements would be approximately \$160 million during the first year of the rule alone. Generally, increased costs of operation for our member companies are passed on through rates that have to be approved by state commissioners. There is no guarantee that the full cost of measuring GHG emissions will be allowed in a rate proceeding. This may force natural gas utilities to file a rate case to recover these costs when they would have otherwise been able to avoid a rate case proceeding. This could cause financial stress for utilities that do not receive full recovery or where there is a significant delay in recovering these costs. There is no need to impose these costs. Gas utilities have an incentive to ensure that their billing meters are accurate and already have a quality control process in place as approved by the local public utility commissions. Stakeholders involved in negotiating industry consensus measurement standards ensure that the methods used to measure and bill for natural gas are accurate; and state utility commissions regulate the frequency of meter calibration. EPA can obtain good quality data by relying on the procedures used to measure natural gas deliveries and calibrate meters for billing purposes. To avoid these unnecessary costs – and the need to revise the economic impact

analysis in your RIA -- AGA strongly urges EPA to delete the additional requirements for daily metering and annual calibration for natural gas billing meters.

Response: See the response to comment EPA-HQ-OAR-2008-0508-0597, excerpt 11.

9. OTHER SUBPART NN RATIONALE

This section provides additional rationale to support collection of specific data elements under Subpart NN.

EPA is seeking data from fractionators on ethane, butane, isobutane, total propane, odorized propane, and pentanes plus to develop an economy-wide understanding of the supply and availability of these products. This information will help us assess both regulatory and non-regulatory approaches to addressing the emissions from the use of these nature gas products. We will compare this upstream supply data to downstream reporting data and determine if we are missing any downstream pockets of data. More specifically:

- We need data on ethane to allow for EPA verification using a mass-balance approach (i.e, by comparing all inputs into the facility with all outputs produced.)
- Butane, isobutane, and pentanes plus are used for gasoline blending, so we are collecting that data to help us assess options under Section 211 of the CAA.
- The propane supply is used as chemical feedstock; for residential and commercial heating; and as fuel in off-road vehicles/machinery (forklifts, tractors, stationary irrigation engines, commercial lawn mowers, etc.). Therefore, we are collecting data on propane for EPA verification under a mass-balance approach; to assess options under CAA Section 211; and to determine if we are missing any downstream pockets of downstream combustion data. We are collecting data on odorizes propane because it will help us identify the amount of the propane supply that is not used as chemical feedstock.

EPA is seeking data from LDCs on the total quantity of natural gas delivered to customers and the total quantity delivered to large customers, disaggregated by customer name, address, meter number, and EIA number (if known). We are collecting this data to develop an economy-wide understanding of the supply of natural gas so that we can compare it to the downstream reporting and determine if we are missing any downstream pockets of data. Natural gas consumed by the residential and commercial sectors is missing from this reporting rule, so collecting data from LDCs gives us data to assess whether and how to regulate such sources under the CAA. We are collecting data on large customers to prevent the CO₂ emissions reported under other Subparts from being unnecessary double-counted in Subpart NN. We can also use the data to verify reporting under other Subparts.

Table 1

COMMENTS	AFFILIATE	DCN
Lisa Beal	Interstate Natural Gas Association of America (INGAA)	EPA-HQ-OAR-2008-0508-0480.1
Richard Bye	CenterPoint Energy, Inc.	EPA-HQ-OAR-2008-0508-2124.1
Brianne Metzger	Spectra Energy Corporation	EPA-HQ-OAR-2008-0508-0364.1

Table 2

COMMENTS	AFFILIATE	DCN
Olon Plunk	Xcel Energy Inc.	EPA-HQ-OAR-2008-0508-0444
R. Skip Horvath	Natural Gas Council (NGC)	EPA-HQ-OAR-2008-0508-0530.1

Table 3

COMMENTS	AFFILIATE	DCN
Karin Ritter	American Petroleum Institute (API)	EPA-HQ-OAR-2008-0508-0679.1
James Greenwood	Valero Energy Corporation	EPA-HQ-OAR-2008-0508-0571.1
William W. Grygar II	Anadarko Petroleum Corporation	EPA-HQ-OAR-2008-0508-0459.1

Table 4

COMMENTS	AFFILIATE	DCN
Johnny R. Dreyer	Gas Processors Association (GPA)	EPA-HQ-OAR-2008-0508-0412.1
William W. Grygar II	Anadarko Petroleum Corporation	EPA-HQ-OAR-2008-0508-0459.1

Table 5

COMMENTS	AFFILIATE	DCN
Pamela A. Lacey	American Gas Association (AGA)	EPA-HQ-OAR-2008-0508-0709.1
Richard Bye	CenterPoint Energy, Inc.	EPA-HQ-OAR-2008-0508-2124.1

Table 6

COMMENTS	AFFILIATE	DCN
Craig Holt Segall	Sierra Club	EPA-HQ-OAR-2008-0508-0635.1
Melissa Thrailkill	Center for Biological Diversity	EPA-HQ-OAR-2008-0508-0430.1