



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

**Volume No.: 16**

**Subpart D—Electricity Generation**

**September 2009**

## **Subpart D—Electricity Generation**

**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 D -- Electricity Generation.

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 D -- Electricity Generation 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 principal 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 D -- Electricity Generation.

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## **SUBPART D -- ELECTRICITY GENERATION**

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**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:** 6

**Comment:** EPA appears to define as an electricity generating facility, any facility that is subject to the Acid Rain Program or that contains electric generating units that collectively emit 25,000 MTCO<sub>2</sub>e or more per year. 74 FR 16612. This expands the category of past Acid Rain units to inappropriately group industrial and institutional generation units with electric generation facilities. The associated industrial and institutional CO<sub>2</sub> emissions would be captured anyway by sources emitting > 25 MTCO<sub>2</sub>e/yr (or some higher threshold EPA may adopt), so there is no logical reason for EPA to include them within the electric generation subset. Therefore, EPA should delete the portion of the statement "or that contain electric generating units that collectively emit 25,000 metric tons CO<sub>2</sub>e or more per year." This is especially important for consistency with whatever regulatory programs to which EPA intends to apply this data.

**Response:** See the individual source category section(s) of the Preamble and the source category comment response document(s) for the response on the definition of the source category.

EPA acknowledges the concerns of the commenter. While the definition of an EGU in §98.6 has been finalized, as proposed, the definition of the electricity generation source category in §98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion).

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**Commenter Name:** Steven M. Maruszewski

**Commenter Affiliation:** Pennsylvania State University (Penn State)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0409.1

**Comment Excerpt Number:** 11

**Comment:** In the preamble document (p203-204) the Electricity Generation source category is described as "facilities with EGUs that are in the ARP," and that "All other facilities using stationary sources to generate electricity should refer to Sec. V.0 of this preamble (General Stationary Fuel Combustion Sources)." In the rule itself (p908), the source category is defined as "all facilities with one or more electricity generating units, including electricity generating units that are subject to the requirements of the Acid Rain Program." In the definitions section of the rule (p893) an "Electricity generating unit or EGU means any unit that combusts solid, liquid, or gaseous fuel and is physically connected to a generator to produce electricity." The definition is too inclusive. Under this broad definition in the proposed rule any unit, regardless of output, could be identified as an electricity generating unit and place the facility in the Electricity Generation subcategory. This subsequently requires reporting for all source categories at the

facility for which calculation methodologies are provided which is contradictory to the statement in the preamble. It is our interpretation of the proposed rule that the University Park Campus would report stationary source emissions for the boilers in our two steam plants and also aggregate smaller unit emissions. The Pennsylvania State University has initiated a project to install a natural gas combustion turbine with a heat recovery steam boiler to co-generate 100,000 pph of steam and 7 MW of electricity. Under the broad definition of an EGU, this new unit could be considered an EGU and fall under the Electric Generation source category. Also, any small generators that are not permitted as emergency generators could put Penn State into the Electricity Generation source category. Although calculating and reporting the emissions would be the same as under the Stationary Fuel Combustion Sources category, having a unit under the Electricity Generation source category would trigger reporting for all source categories at the campus for which calculation methodologies are provided. For Penn State, with its diverse operations and research activities, this could include reporting in the Manure Management, Sulfur Hexafluoride ( $SF_6$ ) from Electrical Equipment, Ethanol Production, Food Processing and potentially other categories. Not all source categories have research exemptions. In the Preamble (p109) "EPA has proposed methods only for source categories that typically contribute a relatively significant amount to a facility's total GHG emissions." Penn State's GHG emissions from these other source categories are minuscule compared to its stationary combustion emissions and required reporting of them would contradict the intent of the rule of keeping the reporting burden to a minimum. In other sections of the Clean Air Act, an EGU is more specifically identified by an output threshold of 25 megawatts and serves a generator that produces electricity for sale. Penn State recommends that the 25 MW threshold be added to the EGU definition in the rule so that small generating units are clearly identified under the Stationary Fuel Combustion Source subcategory. The EPA would still collect the information, but alleviate the burden on facilities such as Penn State with diverse operations from reporting on other subcategories for which the proposed rule was not intended. Alternately, the 25 MW threshold could be added to the Electricity Generation source category definition.

**Response:** See the individual source category section(s) of the Preamble and the source category comment response document(s) for the response on the definition of the source category.

EPA acknowledges the concerns of the commenter. While the definition of an EGU in §98.6 has been finalized, as proposed, the definition of the electricity generation source category in §98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are specifically excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion). Additionally, a facility that is required to report stationary combustion emissions under Subpart C also would need to report for other source categories at the facility for which there are methodologies provided.

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**Commenter Name:** J. Southerland

**Commenter Affiliation:** None

**Document Control Number:** EPA-HQ-OAR-2008-0508-0165

**Comment Excerpt Number:** 6

**Comment:** Incidentally, the recognition that the largest source category, the electric power generating units and certain other large facilities are already required to report to EPA's Acid Rain program annually, using measured (not estimated) data is lauded. Requiring the same facilities to report multiple times is not reasonable.

**Response:** EPA appreciates the commenter's support. While EPA has attempted to reduce the reporting burden on electricity generating units by allowing them to use Part 75 data where applicable, certain additional reporting requirements are necessary for Part 98, and are contained in §98.36 of the final rule. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** See Table 1

**Commenter Affiliation:**

**Document Control Number:** EPA-HQ-OAR-2008-0508-0455.1

**Comment Excerpt Number:** 21

**Similar Response To:** EPA-HQ-OAR-2008-0508-0717, excerpt 12; EPA-HQ-OAR-2008-0508-1566, excerpt 6; and EPA-HQ-OAR-2008-0508-0634, excerpt 3.

**Comment:** Proposed §98.45 would require all EGUs subject to the requirements of the Acid Rain Program to use the missing data substitution procedures in 40 C.F.R. Part 75. The Class of '85 disagrees that the wholesale adoption of Part 75 missing data substitution procedures is appropriate for calculating GHG emissions. The conservative missing data substitution procedures under Part 75 were intended to address the SO<sub>2</sub> allowance trading program to ensure that SO<sub>2</sub> emissions would not be under-reported. For several reasons, the Class of '85 does not believe that these conservative SO<sub>2</sub>-based procedures are appropriate for CO<sub>2</sub> emission calculations. First, these procedures were intended to work in accordance with a monitoring process that was designed to capture highly variable flue gas concentrations. Because of significant variability in the sulfur content of coal, the Part 75 rules require hourly CEMS data. In order to completely and accurately track SO<sub>2</sub> emissions, Part 75 also includes a data substitution methodology for hourly data that encourages high monitor data availability. If CEMS are used and data are missing, either because a monitor or data acquisition and handling system is down or there is a data validation issue, data is substituted on a sliding scale based on monitor data availability. Such a method is appropriate for SO<sub>2</sub> emissions, where hourly data could be variable; however, this method is not necessary for CO<sub>2</sub> emissions, where hourly variation is not significant. Second, these rules were developed at a time when emissions trading and markets were in their infancy and when there was uncertainty regarding the accuracy and dependability of CEMS. As a result, EPA developed conservative methods for dealing with missing data under the Acid Rain Program. Now, however, due to greater general confidence in

the accuracy and proven dependability of CEMS, such a conservative approach is no longer necessary. Lastly, the high bias that would result from the conservative Part 75 data substitution methods for calculating CO<sub>2</sub> emissions would be significantly more costly than the overestimation of SO<sub>2</sub> emissions. The Part 75 methods were designed for measurements of constituents in the ppm range; however, CO<sub>2</sub> reductions are measured in percentages. The potential costs for inaccurate CO<sub>2</sub> mass emissions calculations from fossil fuel-fired EGUs in a cap and trade program could be very large. [See DCN: EPA-HQ-OAR-2008-0508-0455.1 for table illustrating the impact of a one percent overall error caused by data substitution methodologies.] For all of these reasons, the Class of '85 believes that EPA should adopt data substitution procedures for acid rain affected EGUs that are more appropriate for CO<sub>2</sub> emissions. The Class of '85 urges EPA to adopt data substitution procedures under Subpart D that are similar to those required by Subpart C of the Proposal. Also, the Group recommends that the Agency allow acid rain affected EGUs to use fuel consumption data to estimate missing data for longer time periods. Because there is limited variability in the carbon content of coal, a facility should be allowed to calculate CO<sub>2</sub> emissions based on carbon content measurements and the amount of fuel burned, if it can certify its coal quantity measurements.

**Response:** EPA recognizes that the Part 75 missing data requirements were developed for different purposes than to support an emissions reporting and inventory program. However, EPA does not agree that the substitute data procedures in Part 75 are too conservative for GHG reporting purposes. Nearly all Part 75 sources maintain very high monitor data availability (95 percent or better) and use very little substitute data. Only when data availability drops below 80 percent (which seldom occurs) are the substitute data values significantly higher than the true CO<sub>2</sub> concentrations. Therefore, no adjustments to these substitute data values are deemed necessary for Part 98 reporting purposes. Also, under this rulemaking, EPA is not revising Part 75 reporting requirements, and for simplicity and cost reasons EPA is keeping GHG monitoring requirements consistent with current monitoring requirements.

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**Commenter Name:** Kevin Wanttaja

**Commenter Affiliation:** The Salt River Project, WEST (Western Energy Supply Transmission) Associates

**Document Control Number:** EPA-HQ-OAR-2008-0508-0343.1

**Comment Excerpt Number:** 4

**Comment:** Historic emissions data is available and can be used to inform the development and implementation of a GHG program. Since 1996, EGUs have been reporting their CO<sub>2</sub> emissions to the EPA consistent with the requirements of the Title IV of the Clean Air Act. As a result, a vast amount of data is available. If another reporting and monitoring approach is adopted going forward, this would essentially render worthless the previous CO<sub>2</sub> monitoring and reporting investments made by both sources and the EPA.

**Response:** EPA is leaving in the final rule the requirement for ARP units to monitor CO<sub>2</sub> emissions in the same manner as those emissions are monitored under the Acid Rain Program. However, certain additional reporting requirements are necessary for the purposes of Part 98, which are contained in §98.36 of the final rule. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in

the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** Kevin Wanttaja

**Commenter Affiliation:** The Salt River Project, WEST (Western Energy Supply Transmission) Associates

**Document Control Number:** EPA-HQ-OAR-2008-0508-0343.1

**Comment Excerpt Number:** 1 and 3

**Comment:** WEST Associates supports the proposed rule as it relates to electricity-generating units (EGUs). The proposed rule finds that the current reporting program required under Title IV of the Clean Air Act is sufficient to meet the objectives of a mandatory GHG reporting rule identified in the 2007 legislation. WEST Associates concurs with this finding. The Environmental Protection Agency's (EPA) recommendation that existing Acid Rain reporting requirements be used for EGUs is consistent with Congressional intent in establishing the mandatory program. Congress specifically provided EPA with the discretion to use the existing Acid Rain reporting requirements. EPA elected to use this route because this program requires "the reporting of high quality CO<sub>2</sub> data from EGUs..." As it arrived at the recommendation in the proposed rule, it is important to note that the EPA evaluated the current Acid Rain reporting program against other voluntary and mandatory federal and state reporting programs to determine its appropriateness in meeting the objectives of a mandatory GHG reporting program. The existing Acid Rain reporting program will streamline comprehensive inclusion of EGUs into proposed GHG regulatory programs. In the 1990 Clean Air Act amendments, Congress required that CO<sub>2</sub> emissions from EGUs be reported as part of the Acid Rain reporting provisions. The Acid Rain program covers fossil-fueled EGUs with nameplate capacities equal or greater than 25 megawatts. According to EIA, the Acid Rain reporting provisions cover more than 99.5% of the installed fossil-fueled nameplate electricity generation capacity. Legislation currently being considered by Congress proposes establishing a cap and trade program to reduce GHG emissions. Because of the broad coverage of the existing program, the existing reporting program for EGUs will certainly meet the needs of this legislation for this sector without having to divert resources away from other more worthy endeavors to develop a new program. For the tiny fraction of generation that would not be covered under the existing Acid Rain reporting program, the methodologies in the proposed rule will suffice. Electric utilities are well versed in using the Acid Rain system, and the information is accurate and readily available. Transparency is an essential component to any market program. The emissions data from the Acid Rain program is readily available to regulators, market participants and the public. This will greatly facilitate both compliance with the emissions reductions targets and market vitality. The existing reporting requirement for EGU provide that transparency and data availability -- certainly more so than a program delegated to 50 states and non-governmental entities.

**Response:** EPA appreciates the commenter's support. Owners and operators of EGUs that are

required to monitor and report CO<sub>2</sub> mass emissions year-round according to 40 CFR Part 75 must continue to monitor CO<sub>2</sub> emissions according to Part 75. However, certain additional reporting requirements, contained in §98.36 of the final rule, are necessary for the purposes of Part 98. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** Cindy Parsons

**Commenter Affiliation:** Los Angeles Department of Water and Power

**Document Control Number:** EPA-HQ-OAR-2008-0508-0228t

**Comment Excerpt Number:** 1

**Comment:** I would like to echo the comments made by SMUD earlier this morning on the need for the electricity retail providers to report emissions for their wholesale purchases and sales. The electric sector is unique in that the power to serve the customer comes from many different sources. It is important that EPA's reporting program capture this data to support the policies that are currently being discussed on a national level, which are still uncertain. But now is the opportunity to collect that data for use in those future policies.

**Response** See the Preamble, Section III. B., for EPA's response on reporting electricity purchases and sales. Reporting from electricity providers is outside of the scope of the rule. For more information please see Preamble Section II D., for an explanation of "Source Categories to Report" and Volume 1 of the response to comments document for the "Selection of Source Categories to Report".

While EPA is not collecting data on electricity purchases under this vehicle, we understand the importance of acquiring such data in the future. As such, we are exploring options for future data collection on electricity purchases and indirect emissions, and the uses of such data. Such a future data collection on indirect emissions would complement EPA's interest in spurring investment in energy efficiency and renewable energy.

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**Commenter Name:** Obadiah Bartholomy

**Commenter Affiliation:** Sacramento Municipal Utility District

**Document Control Number:** EPA-HQ-OAR-2008-0508-0228a

**Comment Excerpt Number:** 1

**Comment:** The EPA proposed rule requires emissions reporting from electricity generation sources, which we agree is necessary. However, we also see an equal need to report wholesale

electricity transactions and their associated emissions to and by electricity providers. This reporting component is a requirement of the power utility protocol of The California Climate Action Registry as well as The Climate Registry's draft electric power sector requirements and the California Air Resources Board's mandatory reporting regulations. The reason this component is so important is that in cap and trade program fair allowance allocation must consider who pays for emissions and who pays for cleaner alternatives. SMUD, from our own experience in gathering and parsing data, believe that the public, including residential and commercial customers and local governments, all expect and believe that government data that accurately reflects carbon content and retail electricity will be available. Also, considering public statements and documents available publicly, this need is recognized by the National Association of Regulatory Utility Commissioners, NARUC, representing regulators of electric and gas utilities across the country, by the Edison Electric Institute, made up of investor owned utilities serving 70 percent of the retail customers in the United States, and by the American Power Association of which SMUD is a member, and which represents public power utilities serving the vast majority of the remaining retail customers. While the recently released Waxman Markey discussion draft was silent on allowance allocations, it is very likely allowances or their value will be channeled to retail electricity providers on behalf of their customers given this broad coalition of support. Given this, it is critical that the EPA reporting regulations provide the necessary foundation of data to allow this approach for allowance allocation. E-grid and other currently available government collected data are insufficient. This need will be ongoing as regulatory changes to allowance allocations will be dependent on understanding the cost to electricity customers in different sectors and regions of the country. Without this data broadly supported allowance allocations for retail electricity providers will be much more difficult, if not impossible, to do fairly. Initial data, while far from perfect, will be much more better than e-grid at identifying which customers are paying for emissions and which customers are not. With mandatory reporting as the impetus, a clean and efficient transaction record will quickly align itself commercially. This is an important decision that runs the risk of being foreclosed on. If the EPA does not require reporting of wholesale electricity transaction and thereby emissions attributable to electricity at the retail provider level, the ability to capture this available data will be lost. We trust that EPA will give due consideration to the need to include this requirement in the mandatory reporting regulations in the interest of collecting accurate and comprehensive emissions data to inform future policy decisions.

**Response:** See the Preamble, Section III. B., for EPA's response on reporting electricity purchases and sales. Reporting from electricity providers is outside of the scope of the rule. For more information please see Preamble Section II D., for and explanation of "Source Categories to Report" and Volume 1 of the response to comments document for the "Selection of Source Categories to Report"

While EPA is not collecting data on electricity purchases under this vehicle, we understand the importance of acquiring such data in the future. As such, we are exploring options for future data collection on electricity purchases and indirect emissions, and the uses of such data. Such a future data collection on indirect emissions would complement EPA's interest in spurring investment in energy efficiency and renewable energy.

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**Commenter Name:** Jeff A. Myrom

**Commenter Affiliation:** MidAmerican Energy Holdings Company

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

**Comment Excerpt Number:** 6

**Comment:** While CO<sub>2</sub> emissions from electricity generation, as measured by CEMS, are already reported on a quarterly basis under EPA's Acid Rain program, MidAmerican agrees with the EPA's approach of incorporating the cumulative CEMS measured CO<sub>2</sub> emissions as reported in the fourth quarter of each year, rather than requiring four reports per year from such facilities.

**Response:** EPA appreciates your comment and support.

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**Commenter Name:** Helen A. Howes

**Commenter Affiliation:** Exelon Corporation

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

**Comment Excerpt Number:** 13

**Comment:** Exelon recommends that EPA gather facility electricity generation and fuel type data from the Energy Information Administration Form EIA-923 filings. All electricity production facilities with a name plate capacity greater than 1 MW are required to submit information to the EIA at least annually whether the electricity is transmitted on the grid or used onsite. This information includes data on electricity production and consumed fuel quantities and qualities including coal, natural gas, biomass, landfill gas and municipal solid waste among the fuel sources. Direct use of this established system of reporting would allow EPA to gather the desired data and automatically populate some of the required facility data, reduce the administrative burden on EPA for collection and verification and avoid unnecessary, duplicative data reporting for facilities.

**Response:** See the Preamble, Section II. O., on the relationship of this rule to other programs, like EIA.

EPA has made efforts to minimize any additional burden on sources that already report GHG emissions data to an existing EPA program, and has incorporated Part 75 measurement and reporting methods in this rule for EGUs that report CO<sub>2</sub> subject to the Part 75 requirements. The EIA data reports that the commenter suggests EPA gather, however, do not include quantified GHG emissions, and would not meet the objective for GHG reporting by downstream sources.

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**Commenter Name:** None

**Commenter Affiliation:** Vectren Corporation

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

**Comment Excerpt Number:** 7

**Comment:** Vectren appreciates that the Greenhouse Gas Reporting Rule builds off of the Clean Air Act Acid Rain Program, and recognizes the reporting done to date by the electric utility sector under §821 of the Clean Air Act Acid Rain Program. We note that the information reported by electric utilities under that program is acknowledged as "quality data" in the draft reporting rule. As such, we urge EPA not to deviate significantly in the reporting requirements for electric utilities from what is required under §821 of the Clean Air Act. As pointed out in previous comments, electric utilities such as Vectren's generating units are already producing and reporting verifiable and audited emissions data.

**Response:** . EPA appreciates the comment and support. Owners and operators of EGUs that are required to monitor and report CO<sub>2</sub> mass emissions year-round according to 40 CFR Part 75, must continue to monitor CO<sub>2</sub> emissions according to Part 75. However, certain additional reporting requirements, contained in §98.36 of the final rule, are necessary for the purposes of Part 98. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** See Table 1

**Commenter Affiliation:**

**Document Control Number:** EPA-HQ-OAR-2008-0508-0455.1

**Comment Excerpt Number:** 9

**Comment:** Under proposed §98.43, EGUs that are subject to the requirements of the Acid Rain Program would continue to monitor and report CO<sub>2</sub> mass emissions in accordance with the monitoring requirements of 40 C.F.R. Part 75. However, the Class of '85 believes that, when applied to CO<sub>2</sub> emissions, the bias error currently incorporated into these monitoring standards would result in significant costs. There is a known upward bias in current stack flow measurement regulations under 40 C.F.R. Part 75. Under these measurement standards, a "reference monitor" is introduced each year and compared to an affected unit's stack flow monitor. A side-by-side comparison is performed, and for any resulting difference, a bias adjustment factor must be applied. The current rules, however, prescribe that only a positive adjustment factor can be applied. Thus, if the reference monitor demonstrates a higher level of flow than the affected unit's monitor, a bias adjustment factor is added into the stack flow equation. If the reference monitor demonstrates a lower level of flow, no bias adjustment can be made. As a result, this procedure commonly results in high biased stack flow measurements. This bias error is commonly combined with additional error caused by the effect of drift on CEMS measurements. Drift, which is caused by naturally changing air currents and temperatures, may compromise CO<sub>2</sub> CEMS measurements. Although generally tolerable under current Acid Rain Program regulations, this drift, when combined with the high bias error of Part 75, is likely to lead to very costly CO<sub>2</sub> mass emissions errors. In the aggregate, the bias adjustment for stack gas flow calculations (0 - 3% is typical with 3D probe technology) and the natural drift error associated with CEMS ( $\pm 3\%$ ) can combine to establish an allowable upward error or uncertainty of up to 6%. This error becomes quite costly when applied to the significant CO<sub>2</sub> emissions from EGUs. Therefore, the Class of '85 believes that EPA should amend the stack flow measurement regulations in 40 C.F.R. Part 75 as applied to the CO<sub>2</sub> monitoring and reporting requirements to eliminate the incorporated high bias.

**Response:** This comment specifically relates to Part 75 which EPA is not revising under this rulemaking. EPA is keeping GHG monitoring requirements consistent with current monitoring because the Agency does not want to require two sets of data, as that would add to the cost and complexity of this rule. EPA has adopted changes to Part 75 over time to address these types of technical issues, including adoption of alternative stack flow reference test methods to address concerns with high bias.

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**Commenter Name:** Karen S. Price

**Commenter Affiliation:** West Virginia Manufacturers Association (WVMA)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0475.1

**Comment Excerpt Number:** 8

**Comment:** The WVMA is concerned that the proposed effective date of January 1, 2010 does not provide adequate time for effected facilities to determine applicability based on a final reporting rule and prepare to meet the reporting obligations. In order to report emissions by March 2011, much of the equipment procurement and installation as well as testing, quality assurance and database management systems needed to measure, calculate, record and report emissions will need to be in place by January 1, 2010. With the likelihood that EPA will not be able to issue a final rule before September/October 2009, a few short months will not offer sufficient lead-time for affected entities to prepare for, much less implement, the requirements of this program. EPA suggested in the preamble to the rule that, as an option, the rule could be delayed for one year. The WVMA strongly supports this option and urge EPA to delay the implementation of this program for at least one year (reporting of 2011 emissions with submission of the first report in 2012). A one-year deferral would provide affected entities with much needed additional time to develop the required systems to monitor GHG emissions.

**Response:** See the Preamble, Section II. G., for EPA's response on the selection of the initial reporting year.

The final rule requires data collection for calendar year 2010, but has been changed since proposal to allow use of best available monitoring methods for the first part of 2010. EPA plans to provide an applicability tool that will help sources determine if their facilities are affected by this regulation.

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**Commenter Name:** Wesley L. McNealy

**Commenter Affiliation:** Pepco Holdings, Inc. (PHI)

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

**Comment Excerpt Number:** 8

**Comment:** PHI agrees with the approach that EPA proposes for the electric generation sector and commends the agency for building on the existing quarterly emissions reporting requirements of the Acid Rain Program and following the existing requirements under 40 CFR Part 75 and Appendices. PHI encourages EPA to harmonize emissions monitoring requirements across EPA requirements to the extent possible, particularly in instances where the proposed rule would require upgrading the existing continuous emissions monitoring systems (CEMS).

**Response:** See the Preamble, Section II. O., for EPA's response on the relationship of this rule

to other programs.

EPA appreciates the commenters' support and agrees that following existing requirements under 40 CFR Part 75 can help to reduce the burden on reporters.

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**Commenter Name:** Karen S. Price

**Commenter Affiliation:** West Virginia Manufacturers Association (WVMA)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0475.1

**Comment Excerpt Number:** 6

**Comment:** In addition to broadening the exemption for emergency generators as recommended above, other insignificant sources should also be exempted from this rule. EPA stated in the preamble to the proposed rule that the rule is intended to apply to large emitters of GHG emissions. Therefore, EPA should clearly state in 98.40(b) that space heaters, station heaters, water heaters, stationary combustion engines (fire pumps or quench pumps) that are not emergency generators, and auxiliary boilers (start-up and station heating) are exempted from the rule.

**Response:** See the Preamble, Section II. K., for the response on de minimis reporting for small emission points.

Section 98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are specifically excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion). EPA has maintained the exclusion of emergency generators from both Subpart C and Subpart D, and has expanded this exemption to other emergency equipment. EPA has also revised the rule language to exclude the prerequisite for a state or local permit. Please refer to the full definitions of emergency generator and emergency equipment in §98.6. The commenter should note that, while small combustion sources such as space heaters, water heaters, and auxiliary boilers are not required to report under Subpart D, these sources are covered under Subpart C. Subpart C has been substantially revised in order to reduce the burden on reporters, and in many cases small units such as these may be aggregated for simplified reporting.

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**Commenter Name:** Shawn Glacken

**Commenter Affiliation:** Luminant

**Document Control Number:** EPA-HQ-OAR-2008-0508-0549.1

**Comment Excerpt Number:** 2

**Comment:** CO<sub>2</sub> monitoring and reporting for electric generating units should completely conform with EPA's Acid Rain Program requirements under 40 CFR Part 75. In addition, the proposed testing, sampling, and record keeping should be the same as those in 40 CFR Part 75 in order to avoid unnecessary expense and use of resources by electric generating units as well as by EPA.

**Response:** Also see the Preamble, Section II. M., for EPA's response on the general

recordkeeping requirements.

While EPA has attempted to reduce the reporting burden on electricity generating units by allowing them to use Part 75 data where applicable, certain additional reporting requirements are necessary for Part 98, contained in §98.36 of the final rule. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements, as was asserted by the commenters, for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** Erik Bakken

**Commenter Affiliation:** Tucson Electric Power Company

**Document Control Number:** EPA-HQ-OAR-2008-0508-0489.1

**Comment Excerpt Number:** 1

**Comment:** EGUs have been reporting CO<sub>2</sub> emissions under EPA's Acid Rain Program (ARP) for nearly 15 years. Over that time, the equipment, methods, protocols and software used to measure and report the concentration of CO<sub>2</sub> and other stack gases has been continually improved and refined. The investment that the utility industry and EPA have put into the ARP reporting regime has been substantial and it would be inconceivable to not fully recognize and utilize this investment. Furthermore, use of the ARP reporting program as proposed by EPA, is consistent with EPA's stated goal to "have this GHG reporting program supplement and complement, rather than duplicate, U.S. government and other GHG programs." EPA's proposed approach for EGUs will result in continued reporting of "quality" data, without incurring unnecessary costs.

**Response:** EPA appreciates the comment and support and is leaving in the final rule the requirement for ARP units to monitor CO<sub>2</sub> emissions in the same manner as those emissions are monitored under the Acid Rain Program.

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**Commenter Name:** Brian Jones

**Commenter Affiliation:** Clean Energy Group (CEG), M.J. Bradley & Associates, LLC

**Document Control Number:** EPA-HQ-OAR-2008-0508-0212

**Comment Excerpt Number:** 4

**Comment:** CEG also agrees with the approach EPA is proposing for the electric generating sector and commends the agency for building off of existing emissions reporting requirements for the Acid Rain Program.

**Response:** EPA appreciates the comment and support. Owners and operators of EGUs that are required to monitor and report CO<sub>2</sub> mass emissions year-round according to 40 CFR Part 75, must continue to monitor CO<sub>2</sub> emissions according to Part 75. The cumulative CO<sub>2</sub> emissions reported in the fourth quarter must be converted from short tons to metric tons, for Part 98 reporting purposes.

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**Commenter Name:** Eric Holdsworth

**Commenter Affiliation:** Edison Electric Institute

**Document Control Number:** EPA-HQ-OAR-2008-0508-0212

**Comment Excerpt Number:** 1

**Comment:** EEI appreciates the fact that for electric utilities, EPA, in drafting the Reporting Rule, builds off the Clean Air Act Acid Rain Program and appreciates the recognition of the reporting work done to date by our sector under Section 821 of the Clean Air Act. We note that the information reported by utilities under that program is termed "quality data" in the Draft Reporting Rule. We certainly appreciate that. We work hard to do that. As you know, we have got CEMs and other really very accurate ways of measuring our emissions and appreciate the recognition of that work. As such, we would urge EPA not to deviate significantly for utilities in those reporting requirements from what is asked under Section 821.

**Response:** EPA appreciates the comment and support and is leaving in the final rule the requirement for ARP units to monitor CO<sub>2</sub> emissions in the same manner as those emissions are monitored under the Acid Rain Program. However, certain additional reporting requirements, contained in §98.36 of the final rule, are necessary for the purposes of Part 98. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** See Table 1

**Commenter Affiliation:**

**Document Control Number:** EPA-HQ-OAR-2008-0508-0455.1

**Comment Excerpt Number:** 13

**Comment:** Subpart D of the Proposal would require acid rain affected EGUs to submit CO<sub>2</sub> mass emissions data to EPA that is already reported to the Agency under 40 C.F.R. Part 75. The Class of '85 believes that this duplicative administrative task is not justified, as companies would be required to incur the administrative costs associated with two submissions of the same data to the same regulatory Agency. Therefore, the Class of '85 believes EPA should facilitate the

exchange of already submitted data between its various departments instead of burdening EGUs with repackaging and resubmitting previously submitted data.

**Response:** See the Preamble, Section II. M., for EPA's response on the general recordkeeping requirements.

While EPA has attempted to reduce the reporting burden on electricity generating units by allowing them to use Part 75 data where applicable, certain additional reporting requirements are necessary for Part 98, contained in §98.36 of the final rule. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements, as was asserted by the commenters, for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** Caroline Choi

**Commenter Affiliation:** Progress Energy

**Document Control Number:** EPA-HQ-OAR-2008-0508-0439.1

**Comment Excerpt Number:** 1

**Comment:** Progress Energy appreciates the fact that, for electric utilities, the draft GHG Reporting Rule builds off the Clean Air Act (CAA) Acid Rain Program (ARP), and it recognizes the reporting done to date by the sector. We note that the information reported by utilities under that program is termed "quality data" in the draft reporting rule. As such, we urge EPA not to deviate significantly in the reporting requirements for utilities from what is required under the ARP.

**Response:** EPA appreciates the comment and support and is leaving in the final rule the requirement for ARP units to monitor CO<sub>2</sub> emissions in the same manner as those emissions are monitored under the Acid Rain Program. However, certain additional reporting requirements, contained in §98.36 of the final rule, are necessary for the purposes of Part 98. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires

reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** See Table 2

**Commenter Affiliation:**

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

**Comment Excerpt Number:** 120

**Comment:** 98.40 (a): By definition, the rule includes all facilities that generate electricity. This broad coverage includes cogeneration and the self-generation of electricity for remote locations (such as offshore platforms or North Slope facilities) that are utilized in the oil and gas industry. Subpart C provisions for stationary combustion already account for emissions from these units.

**Response:** EPA acknowledges the concerns of the commenters. While the definition of an EGU in §98.6 has been finalized, as proposed, the definition of the electricity generation source category in §98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion).

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**Commenter Name:** Karen St. John

**Commenter Affiliation:** BP America Inc. (BP)

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

**Comment Excerpt Number:** 56

**Comment:** The source category definition in Section 98.40 includes all facilities that generate electricity. This broad coverage includes cogeneration and the self generation of electricity for remote locations (such as offshore platforms or North Slope Alaska facilities) that are utilized in the oil and gas industry. Subpart C provisions for stationary combustion account for emissions from these units. BP requests that EPA eliminate the unit-level reporting requirements for site located electricity generation units where the majority of power (> 50%) is used in operations. Maintaining the requirement for unit level reporting will preclude the aggregation of small sources and sources supplied with a uniform fuel gas options, provided in Subpart C, that greatly simplify the metering/monitoring/reporting/recordkeeping burden and costs. This is particularly problematic for offshore production platforms and remote Oil and Gas facilities where electricity is typically self-generated using natural gas as a fuel.

**Response:** See the individual source category section(s) of the Preamble and the source category comment response document(s) for the response on the definition of the source category.

EPA acknowledges the concerns of the commenters. While the definition of an EGU in §98.6 has been finalized, as proposed, the definition of the electricity generation source category in §98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are

required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion).

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**Commenter Name:** Lauren E. Freeman

**Commenter Affiliation:** Hunton & Williams LLP

**Document Control Number:** EPA-HQ-OAR-2008-0508-0493.1

**Comment Excerpt Number:** 26

**Comment:** UARG appreciates EPA's proposal to allow ARP units to report using the cumulative CO<sub>2</sub> mass emissions estimates reported under Part 75. However, to simplify Subpart D, UARG suggests revising §98.43 as follows: "§98.43 Calculating, recording, and reporting GHG emissions and related data. (a) For each electricity generating unit subject to the requirements of the Acid Rain Program, the owner or operator shall calculate, record, and report GHG emissions and related data as follows: (1) Calculate annual CO<sub>2</sub> emissions by converting the cumulative annual CO<sub>2</sub> mass emissions reported in the fourth quarter electronic data report required under §75.64 of this chapter from units of short tons to metric tons. To convert tons to metric tons, divide by 1.1023. (2) Calculate annual CH<sub>4</sub> and N<sub>2</sub>O mass emissions and related GHG data pursuant to the provisions in §§98.33 - 98.3 5 for stationary fuel combustion units. (3) Record and report data as required in §98.3 6(b) and, if applicable, §98.36(c)(2) or (3). (b) For each electricity generating unit not subject to the requirements of the Acid Rain Program, the owner or operator shall calculate, record, and report annual CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions and related data as required in provisions §§98.33 - 98.38 for stationary fuel combustion units." The remaining provisions in Subpart D are unnecessary and should be removed.

**Response:** The commenter's suggestions for simplification would preclude collection of additional data needed to verify the emission information as well as support analyses of GHG emissions for future policy and program development. It benefits policy makers to understand: (1) the specific sources of emissions; and (2) the effect of different processes, fuels, and feedstocks on emissions. Many of these data are already routinely monitored and recorded by facilities for business reasons. While EPA has attempted to reduce the reporting burden on electricity generating units by allowing them to use Part 75 data where applicable, certain additional reporting requirements are necessary for Part 98, contained in §98.36 of the final rule. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements, as was asserted by the commenters, for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program. EPA believes that §§98.43 – 98.46 and §98.48 all appropriately reference Part 75 and other subparts of Part 98.

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**Commenter Name:** See Table 3

**Commenter Affiliation:**

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

**Comment Excerpt Number:** 23

**Comment:** EPA should make a technical regulatory fix to ensure that these rules apply with appropriate rigor to electricity generating units. As EPA knows, these units generate "almost one third of total GHG emissions and over 90 percent of CO<sub>2</sub> emissions from electricity generation." Because these sources already report CO<sub>2</sub> emissions under the 40 C.F.R. Part 75 Acid Rain Program, EPA does not significantly add to that program's reporting requirements in this rule. For the most part, this choice is appropriate, as the Acid Rain Program's procedures have produced very high quality data. However, important gaps remain: Perhaps because the Acid Rain Program focuses primarily on SO<sub>2</sub> and NO<sub>x</sub>, its monitoring requirements for CO<sub>2</sub> are more limited. It allows all facilities, including coal-fired power plants, to use emissions estimations rather than CEMS to measure this gas, if they so choose. It also allows facilities which emit small quantities of SO<sub>2</sub> and NO<sub>x</sub> to calculate all of their emissions – including CO<sub>2</sub> emissions – with simplified calculations relying upon default emissions factors. Whether or not these choices are appropriate for an acid rain-focused regulatory effort, they are not acceptable for a GHG reporting program. EPA has demonstrated as much in the proposed rule by effectively rejecting these ad hoc approaches for sources outside the Acid Rain Program, requiring GHG CEMS for solid-fuel burning plants using CEMS, and allowing simplified calculations only for the very smallest of stationary combustion boilers. These rules, however, may not clearly apply to electricity generating units because the proposed rule provides that those units shall "continue to monitor and report" emissions under the Acid Rain Program. Thus, such facilities may contend that they are technically allowed to continue using the estimation or simplified calculation approaches that could be available under the Acid Rain Program rules. EPA should clarify that this is not the case by adding a line to the electric generating units protocol, proposed 40 C.F.R §§98.40 et seq., clarifying that (1) the Acid Rain Program's alternate modeling approach for CO<sub>2</sub>, as set out in 40 C.F.R. §§75.10(a)(3) & 75.13(b), shall not apply to units which would otherwise be required to use GHG CEMS under Proposed 40 C.F.R. §98.33(b)(5); and (2) that the simplified calculation methods of 40 C.F.R. §75.19 shall in no circumstances be used to report CO<sub>2</sub> emissions.

**Response:** Under this rulemaking, EPA is not revising Part 75 reporting requirements. EPA is keeping GHG monitoring requirements consistent with current monitoring because the Agency does not want to require two sets of data, as that would add to the cost and complexity of this rule. The commenter is concerned that coal-fired Acid Rain Program units can use a mass balance approach in 40 CFR Part 75, Appendix G instead of a CEMS and flow monitor. In practice, all Acid Rain Program units that burn coal use a CO<sub>2</sub> CEMS and flow monitor (General Stationary Combustion Technical Support Document, EPA-HQ-OAR-2008-0508-0004). The commenter is also concerned about the allowed use of default emission factors for Acid Rain Program Low Mass Emission Units under 40 C.F.R. §75.19, and that this is less stringent than the requirements for a comparable non-Acid Rain Program source under Subpart C. EPA did not believe CO<sub>2</sub> emissions from these sources were significant enough to warrant changes to existing monitoring, and EPA is not revising Part 75 under this rulemaking.

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**Commenter Name:** Robert Rouse

**Commenter Affiliation:** The Dow Chemical Company

**Document Control Number:** EPA-HQ-OAR-2008-0508-0533.1

**Comment Excerpt Number:** 18

**Comment:** Dow Suggests a Revision to the Definition of Electricity Generating Unit EPA's proposed rule defines an Electricity Generating Unit as follows: "...means any unit that combusts solid, liquid, or gaseous fuel and is physically connected to a generator to produce electricity." That definition is too inclusive in that it includes all non-utility generating units and associated combustion units. Although several portions of Subpart D refer to Subpart C, an additional definition of "Electricity Generating Unit" is confusing when evaluating applicability of different EPA requirements. To provide clarity, it is recommended that the definition be the one used in the Acid Rain Title IV of the Clean Air Act: ELECTRIC UTILITY STEAM GENERATING UNIT. — The term "electric utility steam generating unit" means any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that cogenerates steam and electricity and supplies more than one third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale shall be considered an electric utility steam generating unit. The use of this definition will provide clarity, and GHG emissions will still be reported under Subpart C of this rule.

**Response:** See the individual source category section(s) of the Preamble and the source category comment response document(s) for the response on the definition of the source category.

EPA acknowledges the concerns of the commenters. While the definition of an EGU in §98.6 has been finalized, as proposed, the definition of the electricity generation source category in §98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion).

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**Commenter Name:** J. P. Blackford

**Commenter Affiliation:** American Public Power Association (APPA)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0661.1

**Comment Excerpt Number:** 16

**Comment:** Acid Rain Program units will constitute the large majority of reporters and emissions under this Subpart (and a significant percent of national emissions) – but the rule constantly refers to Subpart C (General Stationary Fuel Combustion Sources) for requirements. APPA suggests that EPA put the requirements directly into Subpart D text and avoid referrals to Subpart C (e.g. on calculating emissions, data reporting). APPA supports EPA's proposal that current Acid Rain Program requirements for determining CO<sub>2</sub> emissions in short tons should be used as the basis for determining CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emissions, in metric units and by formula, under this rule. This will simplify the reporting requirements for our utility membership and at the same time provide the accurate and complete data that EPA requires.

**Response:** In response to the comment, EPA does not believe that eliminating all references to

Subpart C through the repetition of all of the relevant requirements in subsequent subparts is needed to clarify the rule. A facility with units subject to both Subparts C and D will be able to find the appropriate cross-references between the two Subparts. EPA appreciates the commenter's support of the selected approach for monitoring and reporting emissions from Acid Rain Program-affected electric generating units.

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**Commenter Name:** Kathy G. Beckett

**Commenter Affiliation:** West Virginia Chamber of Commerce

**Document Control Number:** EPA-HQ-OAR-2008-0508-0956.1

**Comment Excerpt Number:** 15

**Comment:** Subpart D requires reporting of the annual mass emissions of CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> for each EGU. Proposed §98.42. Proposed §98.43 specifies how reported data are to be calculated. The essence of the section is that units subject to the ARP report CO<sub>2</sub> using cumulative data recorded and reported under Part 75 (§75.64), and report N<sub>2</sub>O and CH<sub>4</sub> using the provisions of Part 98, Subpart C for stationary fuel combustion sources. Units not subject to the ARP report all GHG emissions using Subpart C for stationary fuel combustion sources. Proposed §§98.44 - 98.46 are largely superfluous in that they simply repeat requirements that are already set out either in Part 75 or in Subpart C. For example, if a source is using CO<sub>2</sub> data reported under Part 75 to report under this program, it is not necessary to separately specify that those data must be quality assured under Part 75 or that the missing data provisions of Part 75 must be followed. The CO<sub>2</sub> data that were reported under Part 75 will either be Part 75 quality-assured data, or data estimated using Part 75 missing data procedures. It also is not necessary to require in this rule that such units "continue to monitor and report" CO<sub>2</sub> emissions under Part 75, as required under proposed §98.43, or to specify under this subpart the meaning of terms, as stated in proposed §98.48. Repeating requirements that are already set out in Part 75 or in Subpart A to Part 98 is unnecessary, confusing, and inappropriate.

**Response:** In response to the comment, EPA does not believe that the use of definitions or explanations of requirements provided in Part 98, including any also discussed in Part 75, is "unnecessary, confusing, and inappropriate." While the U.S. EPA Acid Rain Program, 40 CFR Part 75, was one of many GHG reporting programs reviewed to obtain information on appropriate quantification and reporting methodologies, as well as to incorporate existing requirements where possible into this rule, Part 98, is a separate and distinct part. While Part 75 is referenced throughout the Mandatory Reporting of Greenhouse Gases in cases pertaining strictly to units subject to Part 75, EPA uses references to definitions and requirements discussed in detail only in relevant subsections in previous subparts of Part 98 in all other cases.

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**Commenter Name:** Robbie LaBorde

**Commenter Affiliation:** CLECO Corporation (CLECO)

**Document Control Number:** EPA-HQ-OAR-2008-0508-1566

**Comment Excerpt Number:** 5

**Comment:** In section F of the preamble, it is stated that "the reporting requirements set forth in 40 CFR part 75 are also being used for this proposed rule". Cleco agrees that in doing this EPA is meeting the MRGG goal of reducing the burden to facilities submitting reports to or programs. It is appreciated that, for electric utilities, the draft mandatory reporting rule builds off the Clean

Air Act acid rain program and that the information reported by utilities under that program is termed "quality data" in the draft reporting rule. As such we urge EPA not to deviate significantly in the reporting requirements for utilities from what is required under section 821 of the Clean Air Act.

**Response:** EPA appreciates the comment and support. Owners and operators of EGUs that are required to monitor and report CO<sub>2</sub> mass emissions year-round according to 40 CFR Part 75, must continue to monitor CO<sub>2</sub> emissions according to Part 75. However, certain additional reporting requirements, contained in §98.36 of the final rule, are necessary for the purposes of Part 98. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** Paul L. Carpinone

**Commenter Affiliation:** Tampa Electric Company (TECO)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0717.1

**Comment Excerpt Number:** 1

**Comment:** Tampa Electric appreciates the fact that the draft GHG Reporting Rule builds off the Clean Air Act acid rain program, and recognizes the reporting done to date by our sector under section 821 of the Clean Air Act Acid Rain Program. Furthermore, Tampa Electric would like to note that the information reported under section 821 is "quality data", and as such, reporting in addition to the data identified under section 821 or other deviations as a result from this rule making from section 821 would incur undue burden to Tampa Electric with onerous record keeping, multiple data set management and reporting, and potential plant operator confusion.

**Response:** EPA appreciates the comment and support. Owners and operators of EGUs that are required to monitor and report CO<sub>2</sub> mass emissions year-round according to 40 CFR Part 75, must continue to monitor CO<sub>2</sub> emissions according to Part 75. However, certain additional reporting requirements, contained in §98.36 of the final rule, are necessary for the purposes of Part 98. The unit-level data required for these sources is minimal, consisting primarily of the GHG emissions totals at each monitored location (i.e., unit, stack, or pipe). The final rule clarifies that Part 75 sources must report Part 98 GHG emissions data under the exact same unit, stack, or pipe ID numbers that are used for electronic reporting in the Part 75 programs. Even though most Part 75 sources report CO<sub>2</sub> mass emissions data to EPA year-round, this alone is not sufficient to satisfy the Part 98 reporting requirements for the following reasons. First, the emissions reports required under Part 98 are facility-wide reports that require GHG emissions from all stationary combustion units at the facility, whether or not the units are subject to a Part 75 program. Many electricity generating facilities have both Acid Rain Program units and non-

Acid Rain units on site. Further, the CO<sub>2</sub> emissions data reported under Part 75 are in units of short tons; Part 98 requires reporting in metric tons. Finally, Part 98 also requires CH<sub>4</sub> and N<sub>2</sub>O emissions to be reported, neither of which are reported under any Part 75 program.

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**Commenter Name:** Victoria Card

**Commenter Affiliation:** Colorado Springs Utilities

**Document Control Number:** EPA-HQ-OAR-2008-0508-0491

**Comment Excerpt Number:** 1

**Comment:** Biogenic CO<sub>2</sub> emissions reporting appears to have been unintentionally overlooked in Subpart D - Electricity Generation. Please add a paragraph under 98.43(a) that allows the use of the Tier 4 biogenic CO<sub>2</sub> calculation methods found at 98.33(e).

**Response:** It is EPA's intent that Acid Rain Program units will be able to continue to measure and report CO<sub>2</sub> emissions as they do under the Acid Rain Program. EPA believes that this will reduce the reporting burden on sources, and for this reason has not required Acid Rain Program units to report biogenic emissions separately. However, EPA has provided a method for Acid Rain Program units which choose to separately quantify their biogenic CO<sub>2</sub> emissions. See §98.33(e) of the final rule for details.

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**Commenter Name:** See Table 2

**Commenter Affiliation:**

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

**Comment Excerpt Number:** 121

**Comment:** API requests that EPA eliminate the unit-level reporting requirements for site located electricity generation units where the majority of power (> 50%) is used at the site. Maintaining the requirement for unit level reporting will preclude the aggregation of small sources and sources supplied with a uniform fuel gas options, provided in Subpart C, that greatly simplify the metering/monitoring/reporting/recordkeeping burden and costs. This is particularly problematic for offshore production platforms and remote Oil and Gas facilities where electricity is typically self-generated using natural gas as a fuel.

**Response:** See the individual source category section(s) of the Preamble and the source category comment response document(s) for the response on the definition of the source category.

EPA acknowledges the concerns of the commenters. While the definition of an EGU in §98.6 has been finalized, as proposed, the definition of the electricity generation source category in §98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion).

The Subpart C requirements allow for aggregation of units for reporting purposes. Individual units with maximum rated heat input capacities of 250 mmBtu/hr or less may be aggregated

without limit into a single group, provided that the Tier 4 (CEMS) methodology is not required for any of the units, and all units in the group use the same tier for any common fuel(s) that they combust. Units with maximum rated heat inputs greater than 250 mmBtu/hr using Tiers 1, 2, and 3 must report as individual units, unless they burn the same type of fuel provided by a common pipe or supply line; in that case, the owner or operator may opt to use Tier 3 calculation methods with the common pipe reporting provisions in §98.36(c).

Additionally, Subpart W covering emissions from oil and gas operations is not being finalized at this time.

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**Commenter Name:** John M. McManus

**Commenter Affiliation:** American Electric Power

**Document Control Number:** EPA-HQ-OAR-2008-0508-0725.1

**Comment Excerpt Number:** 1

**Comment:** AEP commends EPA for focusing on direct GHG emissions from large sources. It is AEP's experience, based on our participation in the US DOE 1605b Climate Challenge program, the Chicago Climate Exchange, and the EPA Climate Leaders program, and our involvement on an industry advisory panel for The Climate Registry, that attempts to quantify emissions from small GHG emission sources and indirect GHG emission sources for the electric power sector are too resource intensive and would burden both the regulated community and EPA. Complete GHG "footprint" exercises at AEP have found that only about 1% of AEP's GHG footprint can be attributed to small sources and indirect emissions. However, collecting and documenting the data for that 1% of AEP's GHG emissions would impose an incremental reporting burden of nearly 50% – just for the incremental effort associated with that 1% of our emissions. The remaining 99% of AEP's footprint is from direct GHG emissions from the generation of electricity and reporting this information is a simple extension of processes already in place for other regulatory programs.

**Response:** EPA appreciates the commenter's support of the selected approach to emissions reporting. See the Preamble and separate comment response document volume for the response on selection of source categories to report. See the Preamble, Section II. K., for the response on de minimis reporting for small emission points.

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**Commenter Name:** Lorraine Krupa Gershman

**Commenter Affiliation:** American Chemistry Council (ACC)

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

**Comment Excerpt Number:** 81

**Comment:** We are concerned that there is no de minimis level for small sources for this subpart (with the exception of portable units and emergency generators). For reference, a 5 MW gas turbine would emit about 25,000 CO<sub>2</sub>e annually. Conversely, a utility-scale machine (GE Frame 7F or equivalent) might generate 750,000 MT tons of CO<sub>2</sub>e annually. As currently proposed, both units – irrespective of their size – must be treated by the source in the same manner. A welding machine – if it is an EGU – would need to be treated similarly. Annual GHG emissions from such a machine would likely be less than a small car or truck. Irrespective of the size of the source, emissions must be calculated, data must be retained, emissions must be reported, etc.

(See proposed 40 CFR 98.42, 43, 44 and 46.)

**Response:** See Preamble, Section II. K., for the response on de minimis reporting for small emission points.

Section 98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion). Subpart C provides simpler methods for emissions estimation for smaller combustion units, and allows small units to be aggregated in an effort to minimize the burden of reporting.

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**Commenter Name:** Kelly R. Carmichael

**Commenter Affiliation:** NiSource

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

**Comment Excerpt Number:** 16

**Comment:** NiSource agrees with the approach that EPA proposes for the electric generation sector and commends the agency for building off of the existing quarterly emissions reporting requirements of the Acid Rain Program and following the existing requirements under 40 CFR Part 75 and Appendices. NiSource encourages EPA to harmonize emissions monitoring requirements across various EPA requirements to the extent possible. Particularly in instances where the proposed rule would require upgrading the existing CEMS, NiSource urges EPA to consider other existing or planned CEMS requirements for the electric sector, such as under a replacement Clean Air Interstate Rule (CAIR) program or under upcoming utility Maximum Achievable Control Technology (MACT) standards (e.g., MACT standards to replace the Clean Air Mercury Rule [CAMR] and its CEMS requirements). Finally, EPA is also proposing that a facility would be required to report GHG emissions from all sources in any source category for which calculation methodologies are provided in proposed 40 CFR Part 98, Subparts B through JJ. NiSource requests clarification on the specific emissions reporting requirements for electric generating sources that are in addition to the stationary combustion provisions.

**Response:** See the Preamble, Section II. O., for the response on the relationship of this rule to other programs.

While EPA appreciates the comment respecting planned CEMS requirements under other programs, until any such revisions are final, it is inappropriate to include any such proposed or contemplated revisions in this rule. The proper place to make any appropriate adjustments would be in revision to Part 75 or in the context of those further rule revisions. EPA believes that §98.36 of the final rule clarifies the specific emissions reporting requirements for both stationary fuel combustion sources in Subpart C, and electricity generation sources in Subpart D. The data reporting requirements in Subpart D include references to sections in Subpart C, where they are discussed in detail.

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**Commenter Name:** Paul L. Carpinone

**Commenter Affiliation:** Tampa Electric Company (TECO)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0717.1

**Comment Excerpt Number:** 12

**Comment:** Proposed §98.45 would require all EGUs subject to the requirements of the Acid Rain Program to use the missing data substitution procedures in 40 C.F.R. Part 75. The conservative missing data substitution procedures under Part 75 were intended to address the acid rain SO<sub>2</sub> allowance trading program to ensure that SO<sub>2</sub> emissions would not be under-reported; this is not applicable in this proposed reporting rule. Part 75 includes a data substitution methodology for hourly data that encourages high monitor data availability. If CEMS are used and data are missing, either because a monitor or data acquisition and handling system is down or there is a data validation issue, data is substituted on a sliding scale based on monitor data availability. Such a method is appropriate for SO<sub>2</sub> emission, where hourly data could be variable; however, this method is not necessary for CO<sub>2</sub> emissions, where hourly variation is not significant. The high bias that would result from the conservative Part 75 data substitution methods for calculating CO<sub>2</sub> emissions would be significantly more costly than the overestimation of SO<sub>2</sub> emissions. The range of measurement resolution for SO<sub>2</sub> and CO<sub>2</sub> are not comparable. SO<sub>2</sub> emissions are measured in the parts per million ranges, where the CO<sub>2</sub> emissions are measure in the percentages of the flue gas. Using current SO<sub>2</sub> market prices and a conservative \$12 per carbon allowance price, an example of the financial impact a small over representation of emissions could have on Tampa Electric is given below [see DCN: EPA-HQ-OAR-2008-0508-0717.1 for table showing the potential financial impact of overestimating CO<sub>2</sub> emissions]. For the reasons stated above, Tampa Electric recommends the EPA should adopt data substitution procedures for ARP EGUs more appropriate to actual CO<sub>2</sub> emissions. Thus, Tampa Electric supports the adoption data substitution procedures under Subpart D similar to those required by Subpart C of the proposed rule.

**Response:** EPA recognizes that the Part 75 missing data requirements were developed for different purposes than to support an emissions reporting and inventory program. However, EPA does not agree that the substitute data procedures in Part 75 are too conservative for GHG reporting purposes. Nearly all Part 75 sources maintain very high monitor data availability (95 percent or better) and use very little substitute data. Only when data availability drops below 80 percent (which seldom occurs) are the substitute data values significantly higher than the true CO<sub>2</sub> concentrations. Therefore, no adjustments to these substitute data values are deemed necessary for Part 98 reporting purposes. Also, under this rulemaking, EPA is not revising Part 75 reporting requirements, and for simplicity and cost reasons EPA is keeping GHG monitoring requirements consistent with current monitoring.

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**Commenter Name:** Randall R. LaBauve

**Commenter Affiliation:** Florida Power & Light (FPL) Group

**Document Control Number:** EPA-HQ-OAR-2008-0508-0624.1

**Comment Excerpt Number:** 11

**Comment:** FPL Group agrees with the approach that EPA proposes for the electric generation sector and commends the Agency for building off of the existing quarterly emissions reporting requirements of the Acid Rain Program and following the existing requirements under 40 CFR Part 75 and Appendices. FPL Group encourages EPA to harmonize emissions monitoring requirements across EPA air programs to the extent possible. Particularly in instances where the proposed rule would require upgrading the existing CEMS, FPL Group urges EPA to consider

other existing or planned CEMS requirements for the electric sector, such as under a replacement Clean Air Interstate Rule (LAIR) program or under upcoming utility Maximum Achievable Control Technology (MACT) standards (e.g., MACT standards to replace the Clean Air Mercury Rule rCAMR1 and its CEMS requirements).

**Response:** See the Preamble, Section II. O., for the response on the relationship of this rule to other programs.

EPA appreciates the commenters' support, and agrees that following existing requirements under 40 CFR Part 75 can help to reduce the burden on reporters. The provisions of Subpart D would not require a Part 75 CEMS upgrade. While EPA appreciates the comment respecting planned CEMS requirements, until any such revisions are final, it is inappropriate to include any such proposed or contemplated revisions in this rule. The proper place to make any appropriate adjustments would be in revision to Part 75 or in the context of those further rule revisions.

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**Commenter Name:** Randall R. LaBauve

**Commenter Affiliation:** Florida Power & Light (FPL) Group

**Document Control Number:** EPA-HQ-OAR-2008-0508-0624.1

**Comment Excerpt Number:** 10

**Comment:** Under the proposed rule, EPA is proposing that manufacturers of mobile sources and engines would be required to report emissions from the vehicles and engines they produce in terms of a general emissions rate, as opposed to requiring fleet operators to report their GHG emissions. However, the Agency is soliciting comment on whether fleet operators should be required to report GHG emissions under the proposed rule. FPL Group supports EPA's proposal to place the GHG reporting obligation on the manufacturers of mobile sources and engines and to exclude the reporting of mobile source fleet emissions.

**Response:** See the Preamble and separate comment response document volume for the response on mobile sources.

See the response to comment EPA-HQ-OAR-2008-0508-0355, excerpt 4.

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**Commenter Name:** Michael DiMauro

**Commenter Affiliation:** Massachusetts Municipal Wholesale Electric Company (MMWEC)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0580

**Comment Excerpt Number:** 9

**Comment:** Units subject to the CAIR rule must monitor emissions in accordance with the same 40 CFR 75 procedures and specifications as Acid Rain units. However, not all CAIR Units are subject to the Acid Rain Program; in particular, (a) non-EGU units with a design heat input > 250 MMBtu/hr and (b) simple cycle EGU units that serve a generator > 25 Mw, and which commenced operation prior to 1990, are subject to CAIR alone. While CAIR units are not required to monitor CO<sub>2</sub> emissions, a Part 75 CAIR monitoring system incorporates all of the monitoring system hardware necessary for measuring CO<sub>2</sub> emissions. Upgrade of such a CAIR system so it is capable of reporting CO<sub>2</sub> emissions entails relatively minor modifications to the DAHS, i.e. the addition of applicable CO<sub>2</sub> emission formulas. This CO<sub>2</sub> monitoring system

enhancement was successfully implemented on a number of CAIR only Units in the Northeast that recently became subject to the RGGI Program, and, as far as I am aware, the upgrades were completed in a relatively straightforward manner. It is therefore requested that 98.43 be revised to specify that units subject to the CAIR Program as well as those subject to the Acid Rain Program be allowed to monitor CO<sub>2</sub> emissions in conformance with applicable 40 CFR 75 procedures and specifications. Further, EPA should consider allowing any stationary source unit subject to the GHG Reporting rule the option to monitor CO<sub>2</sub> emissions in accordance with applicable 40 CFR 75 procedures and specifications [see also Comment 3 above].

**Response:** Section 98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category, as are stationary combustion units that do not produce electricity; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion).

EPA believes that the structure of the final rule mirrors the commenter's suggestion to a large extent. The owner or operator of any general stationary combustion unit may report CO<sub>2</sub> emissions using Tier 4, which may use Part 75 certified CEMS. Furthermore, EPA has added several alternative monitoring approaches for units that report data to EPA according to Part 75, one of which makes use of CO<sub>2</sub> or O<sub>2</sub> CEMS. See §98.33 of the final rule for details.

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**Commenter Name:** Michael DiMauro

**Commenter Affiliation:** Massachusetts Municipal Wholesale Electric Company (MMWEC)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0580

**Comment Excerpt Number:** 8

**Comment:** The Preamble to the Proposed GHG Reporting Rule indicates that CO<sub>2</sub> emissions for units subject to the Acid Rain Program would be monitored using Acid Rain Program procedures (see FR Page 16483 Column 1 and FR 16486 Column 3 (Section D.3), and this sentiment is reiterated in 98.33. However, in Subpart D, Section 98.43, the Proposed Rule indicates that EGUs subject to the Acid Rain Program "shall continue to monitor and report CO<sub>2</sub> mass emissions as required under 75.13 and 75.64." Section 75.64 contains general Acid Rain reporting requirements, while Section 75.13 describes methodologies for determining CO<sub>2</sub> emissions by monitoring flow and CO<sub>2</sub>, or flow and O<sub>2</sub>. Neither of the two Part 75 provisions referenced in 98.43 (75.13 or 75.64) explicitly discusses the 40 CFR 75 Appendix D Acid Rain CO<sub>2</sub> monitoring methodology consisting of Fuel Metering and Fuel sampling. This 40 CFR 75 Appendix D methodology is used by a large number of gas and oil fired Acid Rain sources, and should be explicitly referenced In Part 98 Subpart D (98.43) as an approved method for monitoring and reporting CO<sub>2</sub> emissions under the GHG Reporting Program, to avoid any ambiguity or confusion.

**Response:** Section 98.40 of the final rule has been significantly modified based on the comments received. The final rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category, as are stationary combustion units that do not produce electricity; the GHG emissions from these units are covered under Subpart C (General Stationary Combustion).

Section 98.43 of the final rule does specifically reference the methods in Appendix G to Part 75. However, EPA does not believe that it is appropriate to reference Appendix D in this section of the rule, since units required to report CO<sub>2</sub> emissions to EPA year round according to Part 75 must use the methods in §75.13 or Section 2.3 of Appendix G, along with §75.64. However, alternative approaches to emissions calculation have been added to §98.33 of the final rule, one of which allows units that report heat input data to EPA under Part 75 to use the methods in Appendix D to calculate greenhouse gas emissions.

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**Commenter Name:** Lauren E. Freeman

**Commenter Affiliation:** Hunton & Williams LLP

**Document Control Number:** EPA-HQ-OAR-2008-0508-0493.1

**Comment Excerpt Number:** 4

**Comment:** Most UARG member facilities are likely affected under this rule by virtue of their status in 2010 as "electric generating facilities that are subject to the Acid Rain Program" or facilities with electric generating units that collectively emit 25,000 metric tons CO<sub>2</sub>e or more per year. Proposed §98.2(a)(1). However, under the proposal, such facilities' emission reports must cover all sources at that facility in a source category for which there is a calculation methodology provided in Subparts B through JJ. Id. As a result, most electric generating facilities will be reporting emissions from more than just their ARP affected units. Because even a single electric generating unit ("EGU") can easily emit greater than 25,000 metric tons CO<sub>2</sub>e per year, most electric generating facilities will fall under the rule without any calculation of actual emissions. As a result, UARG is providing only limited comment on the other applicability criteria in proposed §98.2(a)(2) or (3) and on the provisions in proposed § 98.2(b) addressing estimation of emissions for applicability purposes. UARG notes, however, that EPA does not appear to have specified any requirements for determining actual CO<sub>2</sub>e emissions for non-ARP affected "facilities" under proposed § 98.2(a)(1). [Footnote: The provisions in proposed §98.2(b) on their face apply only to (a)(2) and (3).] UARG also notes that because the ARP regulates "units," not "facilities," and a facility can include both ARP "affected" and "non-affected" units, the phrase "facilities that are subject to the Acid Rain Program" is somewhat ambiguous. UARG requests that EPA clarify these.

**Response:** Any such facility with one or more units subject to the Acid Rain Program qualifies as a facility "subject to the Acid Rain Program" as referenced in 40 CFR 98.2(a)(1). These facilities should report emissions for all sources for which calculation methodologies are provided in the rule. The revised rule limits the source category to Acid Rain Program EGUs and other EGUs that are required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other units that produce electricity are excluded from the electricity generation source category. The GHG emissions from these units are covered under Subpart C (General Stationary Combustion). Electric generating facilities without any units subject to the reporting requirements of Subpart D should consult the other applicability and threshold criteria specified in §98.2 of the final rule.

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**Commenter Name:** Steven J. Rowlan

**Commenter Affiliation:** Nucor Corporation (Nucor)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0605.1

**Comment Excerpt Number:** 48

**Comment:** Is this category really needed?

**Response:** See the Preamble, Section II. D., for EPA's response on selection of source categories to report.

EPA believes it is appropriate to include a separate source category for electricity generating units that are subject to the Acid Rain Program or are otherwise required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. The electricity generation source category allows these units to report greenhouse gas emissions to EPA under Part 98 using the data they are already collecting under Part 75, thus reducing the burden of reporting.

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**Commenter Name:** Steven J. Rowlan

**Commenter Affiliation:** Nucor Corporation (Nucor)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0605.1

**Comment Excerpt Number:** 49

**Comment:** In 98.40(c), a new subsection should be added that co-generation facilities that are included under another source category in Subparts E-PP of the rule should report under that Subpart. Sources qualifying under both Subparts C and D should report under Subpart D.

**Response:** EPA has substantially revised §98.40, specifying that only electricity generating units that are either subject to the Acid Rain Program or are otherwise required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75 should report emissions under Subpart D. EPA intends that the stationary combustion source category include any device that meets the definition included in §98.30 for which emissions are not accounted for in the report through a separate subpart of the rule. Per the requirements in 40 CFR Part 98, Subpart A, facilities have to report GHG emissions from all source categories located at their facility, including stationary combustion and process emissions. EPA does not intend that combustion emissions be reported under multiple subparts, and has revised the various subparts of the final rule to clarify this intent.

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**Commenter Name:** Steven J. Rowlan

**Commenter Affiliation:** Nucor Corporation (Nucor)

**Document Control Number:** EPA-HQ-OAR-2008-0508-0605.1

**Comment Excerpt Number:** 50

**Comment:** In 98.41, it is not clear what purpose this section provides since it repeats 98.2.

**Response:** EPA believes that it is appropriate to include §98.41 in the final rule, since this section provides clarification regarding which sources are required to report under Subpart D.

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**Commenter Name:** Caroline Choi

**Commenter Affiliation:** Progress Energy

**Document Control Number:** EPA-HQ-OAR-2008-0508-0439.1

**Comment Excerpt Number:** 3

**Comment:** Progress Energy notes that EPA does not appear to have specified requirements for determining actual CO<sub>2</sub>e emissions for non-ARP affected "facilities" under the proposed rule. Because the ARP regulates "units," not "facilities," and a facility can include both Acid Rain "affected" and "non-affected" units, the phrase "facilities that are subject to the Acid Rain Program" is somewhat ambiguous. EPA should reconsider carefully the definition of "facility" as used within this rulemaking related to electric utilities and ensure that it is consistent with the definition used for the ARP. Doing so will help alleviate potential confusion as well as the potential for significant changes to the current reporting system.

**Response:** It is EPA's intent that all facilities containing one or more electricity generating units subject to the Acid Rain Program will be required to report greenhouse gas emissions from all source categories for which calculation methods are provided. EPA has clarified in the final rule that the electricity generation source category includes electricity generating units that are subject to the Acid Rain Program or are otherwise required to monitor and report to EPA CO<sub>2</sub> emissions year-round according to Part 75. Other electricity generating units should report emissions under Subpart C, which provides detailed methods for calculating greenhouse gas emissions from stationary combustion sources.

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Table 1

COMMENTER	AFFILIATE	DCN
Olon Plunk	Xcel Energy Inc.	EPA-HQ-OAR-2008-0508-0444
Debra J. Jezouit	Class of '85 Regulatory Response Group	EPA-HQ-OAR-2008-0508-0455.1

Table 2

COMMENTER	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 3

COMMENTER	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