Public Comments and Responses for:

Mandatory Greenhouse Gas Reporting Rule:

Deferral Notice

`

August 2011

Public Comments and Responses for: Mandatory Greenhouse Gas Reporting Rule: Deferral Notice

U. S. Environmental Protection Agency

Office of Atmosphere Programs

Climate Change Division

Washington, D.C.

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FOREWORD

On October 30, 2009, EPA published the Mandatory Greenhouse Gas Reporting Rule for requiring data reporting regarding greenhouse gas emissions from a broad range of industry sectors (74 FR 56260). Under 40 CFR part 98 and its subsequent amendments (hereinafter referred to as "Part 98"), EPA will require reporting of data from certain facilities and suppliers above specified thresholds. The data to be reported include information on GHG emissions and GHGs supplied, including information necessary to characterize, quantify, and verify the GHG emissions and GHGs supplied data. In the preamble to Part 98, we stated, "Through a notice and comment process, we will establish those data elements that are 'emissions data' and therefore [under CAA section 114(c)] will not be afforded the protections of CBI. As part of that exercise, in response to requests provided in comments, we may identify classes of information that are not emissions data, and are CBI" (74 FR 56287, October 30, 2009).

On July 7, 2010, EPA proposed confidentiality determinations for Part 98 data elements and proposed amending EPA's regulation for handling confidential business information to add specific procedures for the treatment of Part 98 data (75 FR 39094; hereinafter referred to as the "July 7, 2010 CBI proposal"). These proposed amendments to 40 CFR part 2 would allow EPA to release Part 98 data that are determined to be emission data or non-CBI upon finalizing the confidentiality status of these data. The amendments also set forth procedures for treatment of information in Part 98 determined to be CBI. The proposed procedures are similar to or consistent with the existing 40 CFR part 2 procedures.

The July 7, 2010 CBI proposal proposed confidentiality statuses for the data elements for subparts that were included in the 2009 final Part 98 rule (see 74 FR 56260, October 30, 2009); four subparts finalized in July 2010 (see 75 FR 39736, July 12, 2010); and seven new subparts that had been proposed but not yet finalized as of July 2010 (see 75 FR 18576, 75 FR 18608, and 75 FR 18652, April 12, 2010). The July 7, 2010 CBI proposal also covered proposed changes to the reporting requirements for some of the 2009 final Part 98 subparts. These changes were proposed in two separate rulemakings (see 75 FR 18455, April, 12, 2010; and 75 FR 33950, June 15, 2010).

On August 11, 2010, EPA published a proposed amendment to Part 98 to change the description of some reported data elements and require reporting of some new data elements (75 FR 48744; hereinafter referred to as the "August 11, 2010 revisions proposal"). EPA concurrently issued a supplemental CBI proposal that proposed confidentiality determinations for the new and revised data elements included in the August 11, 2010 revisions proposal (75 FR 43889, July 27, 2010; hereinafter referred to as the "July 27, 2010 supplemental CBI proposal").

As described in detail in the CBI proposals identified above, EPA grouped Part 98 data into 22 data categories (11 direct emitter data categories and 11 supplier data categories), with each of the categories containing data elements that are similar in type or characteristics. EPA then proposed confidentiality determinations for each category, with a few exceptions that are not relevant to today's action. Consistent with EPA's long-standing interpretation, EPA proposed that data elements in the inputs to emission equations data category meet the definition

of emission data under 40 CFR 2.301(a)(2)(i) and therefore, under CAA section 114(c), could not be held as confidential once they were reported to EPA.

EPA received numerous public comments on the July 7, 2010 CBI proposal and the July 27, 2010 supplemental CBI proposal. EPA received comments that raised concerns regarding the public availability of data in the inputs to emission equations category. EPA determined that these concerns warranted an in-depth evaluation of the potential impact from the release of inputs to emission equations, as well as collection and review of additional information, that could not be completed before the March 31, 2011 reporting deadline.

In the proposal to this final rulemaking (75 FR 81350, December 27, 2010, hereinafter referred to as the "December 27, 2010 deferral proposal"), EPA proposed to defer the reporting of inputs to equations until March 31, 2014, to afford additional time to complete this evaluation and take appropriate final actions regarding inputs to equations before these data elements are reported to EPA and potentially become subject to release. The deferral proposal concerned only reporting of inputs to emission equations for direct emitters and did not affect any other requirements of Part 98.

Concurrent with that notice, EPA promulgated an interim final rule (75 FR 81338, December 27, 2010) that deferred the initial March 31, 2011 reporting date for inputs to emission equations to August 31, 2011, to give EPA time to promulgate this deferral through notice and comment.

EPA concurrently published a call for information, entitled "Information on Inputs to Emission Equations under the Mandatory Reporting of Greenhouse Gases Rule" (75 FR 81366, December 27, 2010; hereinafter referred to as the "call for information"), to collect additional information to assist EPA with the evaluation of the data elements being deferred. In the call for information, we requested comment on whether each data element used as an input to an emission equation for direct emitters was likely to cause substantial competitive harm if made publicly available; whether and where it was already publicly available; and, if public availability of a given input was likely to cause substantial competitive harm, suggestions of alternate calculation methodologies and/or verification approaches. A later Federal Register notice extended the deadline for reporting of all 2010 reporting year data until September 30, 2011 (76 FR 14812, March 18, 2011). This included those data whose reporting deadline had previously been deferred until August 31, 2011, in the interim final rule.

Based on the July 7, 2010 CBI proposal, July 27 supplemental CBI proposal, and comments thereto, EPA promulgated confidentiality determinations for certain data elements required to be reported under Part 98 and finalized amendments to the Special Rules Governing Certain Information Obtained Under the Clean Air Act, which authorizes EPA to release or withhold as confidential reported data according to the confidentiality determinations for such data without taking further procedural steps (76 FR 30782, May 26, 2011, hereinafter referred to as the "May 26, 2011 Final CBI Rule"). That notice addressed reporting of data elements in 34 subparts that were determined not to be inputs to emission equations and therefore were not proposed to have their reporting deadline deferred. That rule did not make confidentiality determinations for eight subparts for which reporting requirements were finalized after publication of the July 7, 2010 CBI proposal and July 27, 2010 supplemental CBI proposal. As explained in Section II.A.3 of the preamble to the May 26, 2011 Final CBI Rule, EPA will

address the confidentiality of the data elements in those eight subparts in a separate action. That rule also did not address data elements used as inputs to emission equations. That rule also did not address data elements used as inputs to emission equations, which are addressed in today's final deferral rule.

This document contains excerpts, arranged by subject, from comments made to the docket for the December 27, 2010 deferral proposal (EPA-HQ-OAR-2010-0929) and provides EPA's responses to these comments. This document also includes excerpts from comments submitted to the docket for the concurrent call for information (EPA-HQ-OAR-2010-0964), which was incorporated by reference into the deferral docket in a memorandum to the deferral docket, "Incorporation by Reference of EPA-HQ-OAR-2009-0924 and EPA-HQ-OAR-2010-0964" (docket control number EPA-HQ-OAR-2010-0929-0002). EPA incorporated the call for information docket into the docket for this action and is including comments submitted in response to the call for information in this document as we believe those comments help to inform the length of time needed to evaluate inputs to emission equations and, as appropriate, consider additional calculation and verification approaches, a process described in the preamble to the final deferral rule and a memorandum to the deferral docket, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations." In finalizing the deferral rule, EPA is not responding to or otherwise considering comments submitted in response to the call for information for any other purpose. We defer assessing comments relating to the confidentiality status of any inputs to emission equations or suggesting alternate calculation or verification approaches to action on the inputs evaluation process mentioned above. Though EPA also incorporated docket EPA-HQ-OAR-2009-0924 (the docket for the July 7, 2010 CBI proposal, July 27, 2010 supplemental CBI proposal, and May 26, 2011 final CBI rule) into the deferral docket in the memorandum mentioned above, we are not including comments submitted to that docket in this document (except those which a commenter specifically incorporated in comments submitted to the deferral or call for information docket and to which we had previously deferred responding) because they were addressed in the Response to Comments for the May 26, 2011 final CBI rule (DCN EPA-HQ-OAR-2009-0924-0083, available on our website at http://www.epa.gov/climatechange/emissions/CBI.html.)

During the 70-day public comment period, EPA received over 50 comment letters in response to the deferral proposal and call for information. This document provides EPA's responses to public comments received in response to the deferral proposal and call for information that are within the scope of these notices. Additional comments were received that are outside the scope of these notices. This document provides the verbatim text of each comment extracted from the original comment letters unless otherwise noted. For each comment excerpt, the name and affiliation of the commenter, the document control number (DCN) assigned to the comment letter, and the number of the comment excerpt are provided.

Copies of all comment letters submitted are available at the EPA Docket Center Public Reading Room or electronically through http://www.regulations.gov by searching dockets EPA-HQ-OAR-2010-0929 and EPA-HQ-OAR-2010-0964.

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

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For technical information, contact the Greenhouse Gas Reporting Rule Hotline at: http://www.epa.gov/climatechange/emissions/ghgrule_contactus.html.

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EPA-HQ-OAR-2010-0929-0007.1	Karin Ritter, Regulatory and Scientific Affairs	American Petroleum Institute (API)
EPA-HQ-OAR-2010-0929-0010.1	Paul A. Griffin, Professor of Management	University of California, Davis
EPA-HQ-OAR-2010-0929-0011.1	Brian R. Coleman, Chairman	Titanium Dioxide Stewardship Council (TDSC)
EPA-HQ-OAR-2010-0929-0012.1	Lorraine Krupa Gershman, Director	American Chemistry Council (ACC)
EPA-HQ-OAR-2010-0929-0013.1	C. A. U. Sigurdson	Private Citizen
EPA-HQ-OAR-2010-0929-0014.1	Catharine A. Fitzsimmons, Chief Air Quality Bureau	Iowa Department of Natural Resources (DNR)
EPA-HQ-OAR-2010-0929-0015.1	Stuart A. Clark, Air Quality Program Manager	Washington State Department of Ecology
EPA-HQ-OAR-2010-0929-0016	G. Graham	Private Citizen
EPA-HQ-OAR-2010-0929-0017.1	Arthur N. Marin, Executive Director	Northeast States for Coordinated Air Use Management (NESCAUM)
EPA-HQ-OAR-2010-0929-0018.1	William C. Herz, Vice President, Scientific Programs	The Fertilizer Institute (TFI)
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EPA-HQ-OAR-2010-0929-0021.1	Paul Noe, Vice President and Robert Glowinski, President	American Forest & Paper Association (AF&PA) American Wood Council (AWC)
EPA-HQ-OAR-2010-0929-0022.1	Kevin P. Bundy, Senior Attorney	Center for Biological Diversity
EPA-HQ-OAR-2010-0929-0023.1	Robert D. Bessette, President	Council of Industrial Boiler Owners (CIBO)
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EPA-HQ-OAR-2010-0929-0026.1	Robert A. Reich, P.E., Manager, Global Environmental Stewardship, DuPont Safety, Health & Environment and Sustainable Growth Center	The Dupont Company
EPA-HQ-OAR-2010-0929-0027.1	David Isaacs, Director, Environment, Safety and Health	Semiconductor Industry Association (SIA)
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EPA-HQ-OAR-2010-0929-0030.1	William Space, Environmental Analyst	Massachusetts Department of Environmental Protection (MassDEP)
EPA-HQ-OAR-2010-0929-0031	Jay M. Dietrich, P.E., CEA Program Manager: Climate Stewardship, Senior Technical Staff Member	IBM
EPA-HQ-OAR-2010-0929-0032.1	David Thornton, Minnesota, Co-Chair and James Hodina, Cedar Rapids, Iowa, Co-Chair	National Association of Clean Air Agencies (NACAA)
EPA-HQ-OAR-2010-0929-0033.1	Angus E. Crane, Executive Vice President, General Counsel	North American Insulation Manufacturers Association (NAIMA)
EPA-HQ-OAR-2010-0964-0004	Peter Anderson, Executive Director	Center for a Competive Waste Industry
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EPA-HQ-OAR-2010-0964-0008.1	Arthur N. Marin, Executive Director	Northeast States for Coordinated Air Use Management (NESCAUM)
EPA-HQ-OAR-2010-0964-0009.1	Keith Adams, PE, Environmental Manager, Climate Change Programs	Air Products and Chemicals, Inc.
EPA-HQ-OAR-2010-0964-0010.1	Greg L. Johnson, Counsel	International Carbon Black Association (ICBA)
EPA-HQ-OAR-2010-0964-0011.1	William C. Herz, Vice President, Scientific Programs	The Fertilizer Institute (TFI)
EPA-HQ-OAR-2010-0964-0011.2	William C. Herz, Vice President, Scientific Programs	The Fertilizer Institute (TFI)
EPA-HQ-OAR-2010-0964-0012.1	Paul Noe, Vice President, Public Policy and Robert Glowinski, President	American Forest & Paper Association (AF&PA) and American Wood Council (AWC)
EPA-HQ-OAR-2010-0964-0013.1	Kevin P. Bundy, Senior Attorney	Center for Biological Diversity
EPA-HQ-OAR-2010-0964-0014.1	Robert D. Bessette, President	Council of Industrial Boiler Owners (CIBO)
EPA-HQ-OAR-2010-0964-0015.1	Lorraine Krupa Gershman, Director	American Chemistry Council (ACC)
EPA-HQ-OAR-2010-0964-0016.1	Bill Donald, President	National Beef Cattlemen's Association (NCBA)
EPA-HQ-OAR-2010-0964-0017.1	Leslie Sue Ritts, Counsel	National Environmental Development Association's Clean Air Project (NEDA/CAP)
EPA-HQ-OAR-2010-0964-0018.1	Ray Niemiec	Texas Instruments Incorporated (TI)
EPA-HQ-OAR-2010-0964-0018.2	Ray Niemiec	Texas Instruments Incorporated (TI)
EPA-HQ-OAR-2010-0964-0019	Robert N. Steinwurtzel, Counsel, Baker & Hostetler LLP	Association of Battery Recyclers, Inc. (ABR)
EPA-HQ-OAR-2010-0964-0020.1	Arline M. Seeger, Executive Director	National Lime Association (NLA)

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EPA-HQ-OAR-2010-0964-0021.1	James Brooks, Director, Bureau of Air Quality	Maine Department of Environmental Protection (DEP)
EPA-HQ-OAR-2010-0964-0022.1	Curtis Ravenel, Director of Sustainability	Bloomberg LP
EPA-HQ-OAR-2010-0964-0023.1	Karin Ritter, Manager, Regulatory and Scientific	American Petroleum Institute (API) et al.
EPA-HQ-OAR-2010-0964-0024.1	David Isaacs, Director, Environment, Safety and Health	Semiconductor Industry Association (SIA)
EPA-HQ-OAR-2010-0964-0025.1	Jay M. Dietrich, CEA Program Manager: Climate Stewardship, Senior Technical Staff Member	IBM
EPA-HQ-OAR-2010-0964-0026.1	D. Mark Durcan, President and Chief Operating Officer	Micron Technology, Inc.
EPA-HQ-OAR-2010-0964-0027.1	Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.	Mississippi Lime Company (MLCO)
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EPA-HQ-OAR-2010-0964-0032.1	Angus E. Crane, Executive Vice President, General Counsel	North American Insulation Manufacturers Association (NAIMA)
EPA-HQ-OAR-2010-0964-0033.1	Frederick T. Harnack, General Manager, Environmental Affairs	United States Steel Corporation (USS)
EPA-HQ-OAR-2010-0964-0034.1	Robert A. Reich, P.E., Manager, Global Environmental Stewardship	E.I. DuPont de Nemours and Co.
EPA-HQ-OAR-2010-0964-0035.1	Kevin M. Dempsey, Vice President, Public Policy and General Counsel	American Iron and Steel Institute (AISI)
EPA-HQ-OAR-2010-0964-0036.1	Marjorie Kaplan, Dr. P.H., Manager	State of New Jersey, Department of Environmental Protection, Office of Climate and Energy
EPA-HQ-OAR-2010-0964-0037	David W. Peightal, P.E., Environmental Manager	Dakota Gasification Company
EPA-HQ-OAR-2010-0964-0038.1	David Isaacs, Director Environmnet, Safety and Health	Semiconductor Industry Association
EPA-HQ-OAR-2010-0964-0039	Frederick T. Harnack, General Manager, Environmental Affairs	United States Steel Corporation (USS)

1.0 GENERAL COMMENTS ON THE DEFERRAL

1.1 Support Deferral

Commenter Name: Paul Noe, Vice President and Robert Glowinski, President
Commenter Affiliation: American Forest & Paper Association (AF&PA) American Wood Council (AWC)
Document Control Number: EPA-HQ-OAR-2010-0929-0021.1
Comment Excerpt Number: 1

Comment: AF&PA is fully supportive of EPA's proposal to defer reporting of specific data elements that are used to develop calculations of GHG emissions as EPA proposes. We agree that EPA should take the time to collect, analyze, and fully address the information requested in the separate Call for Information (75 *Federal Register* 81366), to which AF&PA and AWC is submitting comments under separate cover. It is fully appropriate that EPA should take until March 2014 to accomplish this effort.

Response: EPA thanks the commenter for their input. Today's action provides EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and to take further action if necessary. In today's final rule, EPA is requiring reporting of some inputs to equations for calendar years 2010 and 2011 by March 31, 2013, a year sooner than proposed. These data elements are those for which EPA either is further along or able to proceed more quickly in the evaluation process. However, for the remaining inputs, EPA either is less far along or the evaluation processes are more time-consuming. EPA is therefore deferring the reporting deadline for these inputs for calendar years 2010 through 2013 to March 31, 2015. For the list of deferred inputs to emission equations and the reporting deadline for each input, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Robert D. Bessette, President
Commenter Affiliation: Council of Industrial Boiler Owners (CIBO)
Document Control Number: EPA-HQ-OAR-2010-0929-0023.1
Comment Excerpt Number: 1

Comment: CIBO supports EPA's proposal to defer the requirement to report inputs to emission equations for calendar years through 2012 until March 31, 2014.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Charles D. Johnson, Vice President, Environment Health & Safety
Commenter Affiliation: The Aluminum Association, Inc.

Document Control Number: EPA-HQ-OAR-2010-0929-0025.1
Comment Excerpt Number: 1

Comment: The Aluminum Association supports the deferral of direct emitter reporting until March 31, 2014, so that confidential business information (CBI) concerns raised by multiple commenters can be adequately addressed.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Jay M. Dietrich, P.E., CEA Program Manager: Climate Stewardship, Senior Technical Staff Member
Commenter Affiliation: IBM
Document Control Number: EPA-HQ-OAR-2010-0929-0031
Comment Excerpt Number: 1

Comment: IBM supports the EPA proposal to defer until March 31, 2014, the requirement to report inputs to emission equations for calendar years through 2012. per the requirements promulgated under 40 CFR Part 98 Mandatory Reporting of Greenhouse Gases: Additional Sources of Fluorinated GHGs; Final Rule.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Jay M. Dietrich, P.E., CEA Program Manager: Climate Stewardship, Senior Technical Staff Member
Commenter Affiliation: IBM
Document Control Number: EPA-HQ-OAR-2010-0929-0031
Comment Excerpt Number: 4

Comment: IBM is supportive of reporting GHG emissions associated with its operations - it has reported this data publically for its operations, in an aggregated form by country and gas type, since the 1990's. The proposed deferral of the reporting inputs to emissions equations is one important step of many that EPA is taking to enhance the final rule and ensure it is workable while meeting EPA's objective of improving the accuracy of GHG emissions reporting.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Angus E. Crane, Executive Vice President, General Counsel
Commenter Affiliation: North American Insulation Manufacturers Association (NAIMA)

Document Control Number: EPA-HQ-OAR-2010-0929-0033.1
Comment Excerpt Number: 7

Comment: NAIMA and its members strongly support EPA's Proposal "to defer direct emitter reporting of inputs to emission equations for calendar years through 2012 until March 31, 2014."

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Lorraine Gersham
Commenter Affiliation: American Chemistry Council
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 6

Comment: We strongly support EPA's review of its proposal for the treatment of CBI in the Mandatory Reporting Rule for greenhouse gas emissions.

ACC has been very concerned about how EPA will treat CBI and we continue to be concerned due to none of the July 2010 proposals being finalized at this point. Because EPA proposed its rule only after finalizing the Mandatory Reporting Rule, we were not able to fully consider possible alternative reporting options that might have protected more sensitive information of CBI. We welcome EPA's decision to defer the reporting of inputs to emissions equations and its call for information to afford all stakeholders the necessary time to fully evaluate how these inputs and other sensitive data should be treated.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter

Commenter Affiliation: American Petroleum Institute
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 8

Comment: API and its member companies welcome the EPA's interim final rule to defer until August 31, 2011 the reporting deadline for calendar year 2010 data elements that are "inputs to emission equations." API also welcomes EPA's proposed rule that would further defer the reporting deadline for designated data elements until March 31st, 2014 allowing time to address important issues related to the reporting of confidential business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Charles D. Johnson, Vice President, Environment Health & Safety
Commenter Affiliation: The Aluminum Association, Inc.
Document Control Number: EPA-HQ-OAR-2010-0929-0025.1
Comment Excerpt Number: 2A

Comment: The Agencies determination that CBI issues must be addressed prior to initiating production related reporting requirements is sound, and we support that determination.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Robert D. Bessette, President
Commenter Affiliation: Council of Industrial Boiler Owners (CIBO)
Document Control Number: EPA-HQ-OAR-2010-0929-0023.1
Comment Excerpt Number: 2

Comment: CIBO supports EPA's decision to propose providing the broadest form of protection possible for this data while it gathers more information to understand the harms that may befall entities if this data were made public. EPA made an appropriate decision to propose not making entities report this data until 2014.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 1

Comment: EPA has proposed to defer the reporting deadline for a subset of data elements in the "inputs to emission equations" category until March 31, 2014, to provide it sufficient time to consider comments on the confidentiality determinations for certain data elements. *See* 75 Fed. Reg. 81350 (Dec. 27, 2010). The Associations strongly support this proposed deferral but request that EPA clarify that the deferral includes *all* data elements in this category.

Response: In the July 7, 2010 CBI proposal, EPA defined the data elements in the Inputs to Emission Equations category as data elements that are ''inputs to equations specified in Part 98 for calculating emissions to be reported by direct emitters . . . and are used by the reporting direct emitting sources to calculate their annual GHG emission under Part 98'' (75 FR 39094 July 7, 2010). However, in preparing the interim final and proposed deferral notices, EPA noted that the July 2010 CBI proposals inadvertently included in the Inputs to Equations category 69 data elements that are information related to emissions calculations but are not the actual inputs specified in any Part 98 emission calculation. For example, a subpart may require that reporters complete a particular calculation for each unit across a facility. In this circumstance, a reporter

would gather necessary data and complete the calculation for each unit. Although Part 98 specifies that reporters must complete the calculation for each unit, the actual number of units would not be an input to the emission equation based on our description of the Inputs to Equations category. Some of the data elements were moved out of the Inputs to Equations category in the interim final and proposed deferral notices and ultimately in the May 26, 2011 Final CBI rule (76 FR 30782) because after further consideration, we determined the frequency of measurement that is prescribed in the ''Calculating GHG emissions'' sections differs from that of the data element that is reported. For example, in Equation Y–1a in 98.253(b)(1)(ii)(a), ''CCp'', the average carbon content of the flare gas combusted,'' is required to be monitored either daily or weekly. The daily or weekly carbon content of the flare gas combusted, however, is not required to be reported. Instead, pursuant to 98.256(e)(6), the ''annual average carbon content of the flare gas'' is required to be reported. Therefore, the carbon content is required to be measured and used to calculate emissions at a higher frequency than that which is required to be reported. As a result, the reporting element is an average of the actual values that are used to calculate the emissions, and is not actually used to calculate emissions. In cases such as these, we have determined that the reporting elements are not inputs to equations.

For the list of the 69 data elements that were reassigned to other data categories, please see Appendix C of the memorandum "Final Data Category Assignments and Confidentiality Determinations for Part 98 Reporting Elements" (available in Docket EPA–HQ–OAR–2009–0924 and on EPA's Web site (see *http://www.epa.gov/climatechange/emissions/CBI.html*). For the list of inputs and the reporting deadline for each input, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 1

Comment: Comment: NEDA/CAP supports EPA's decision to defer the collection of sensitive emission inputs that would otherwise be reported this year, but for the December 27, 2010 and recent March 2011 deferments.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship, DuPont Safety, Health & Environment and Sustainable Growth Center
Commenter Affiliation: The Dupont Company
Document Control Number: EPA-HQ-OAR-2010-0929-0026.1
Comment Excerpt Number: 5

Comment: DuPont strongly supports the subject proposal to defer the requirement to report inputs to emission equations for calendar years through 2012 until March 31, 2014. We believe that it is crucial that EPA takes the time needed to review the additional information that will be submitted in response to its Call for Information (75 *Federal Register* 81366- 81368, December 27, 2010), to which we responded in a separate letter today, before requiring the submittal of any data that may be considered CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2010-0929-0027.1
Comment Excerpt Number: 2

Comment: SIA supports EPA's proposal to defer for three years the reporting date of data elements that are inputs to emission equations under the Mandatory Greenhouse Gas Reporting Rule. SIA believes that this action is necessary and appropriate to provide the Agency with sufficient time to make the complex and important confidentiality determinations for data elements that are inputs to emission equations for direct emitters. The proposed deferral of the reporting inputs to emissions equations is one important step that EPA can take to enable the development of a workable rule that meets EPA's intent to improve the accuracy of GHG emissions reporting.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Jay M. Dietrich, P.E., CEA Program Manager: Climate Stewardship, Senior Technical Staff Member
Commenter Affiliation: IBM
Document Control Number: EPA-HQ-OAR-2010-0929-0031
Comment Excerpt Number: 3

Comment: The extension of the due date for the reporting of the inputs to the emissions equations is important to allow time for EPA to consider industry comments in response to the request for information on Confidential Business Information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

1.2 Counter Deferral

Commenter Name: G. Graham
Commenter Affiliation: Private Citizen
Document Control Number: EPA-HQ-OAR-2010-0929-0016
Comment Excerpt Number: 1

Comment: The Clean Air Act makes clear that emission data -- including the inputs to emissions equations -- must be released to the public. I strongly oppose industry efforts to delay reporting of crucial greenhouse gas data until 2014, five years after Congress ordered EPA to put the greenhouse gas reporting system in place. If polluters do not wish to use emissions equations, they should not get special treatment. Instead, they should simply be required to directly measure their emissions, as the reporting rule already allows.

Response: EPA thanks the commenter for their input. Today's action does not establish the confidentiality status of any inputs to emission equations; rather, as described in the preamble to this action, it provides EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and to take further action if necessary. In the preamble to the deferral proposal, EPA noted that the business concerns that prompted EPA's decision to further evaluate inputs to equations before collecting them likely apply to some but not all inputs to equations. 75 FR 81350, 81354 (December 27, 2010). However, EPA proposed to defer reporting of all inputs to equations because EPA could not complete its evaluation of all of these data elements, including determining which of these data elements are already publicly available, before the original reporting deadline. 75 FR at 81355. As described more fully in the final rule preamble and in the docket memorandum, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA's evaluation process is extensive and contains many detailed steps. Today's final rule requires reporting of some inputs to equations by March 31, 2013, a year sooner than proposed. These data elements are those for which EPA either is further along or able to proceed more quickly in the evaluation process. However, for the remaining inputs, EPA either is less far along or the evaluation processes are more time-consuming. EPA is therefore deferring the reporting deadline for these inputs to March 31, 2015.

We disagree that the deferral is contrary to Congress's instruction to EPA to create a greenhouse gas reporting program. Title II of the 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161) requires EPA to establish "mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors" of the U.S. economy through publication of a draft rule within 9 months of the promulgation of the Appropriations Act and a final rule within 18 months, a task EPA accomplished in its promulgation of the Greenhouse Gas Reporting Program under Part 98. Congress left the Agency discretion in determining the specific data to be reported, timing of data reporting, and the methods of data calculation and verification. Today's action affects only the reporting deadline of the data elements identified as inputs to emission equations, which EPA has discretion to establish. During the deferral period, reporters must continue to report GHG emission levels and all other data required under Part 98 that are not identified as inputs to emission equations.

We also disagree that the inclusion of direct monitoring methods in some Part 98 subparts makes the deferral unnecessary. CEMS methods are not currently available for all GHG emission sources. Currently, 20 of the 34 Part 98 subparts for direct emitters provide an option to use CEMS for determining CO_2 emissions, while subparts for adipic acid (subpart E) and nitric acid (subpart V) allow facilities to petition EPA for approval to use CEMS for determining N_2O emissions. CEMS for other GHGs, such as SF_6 and fluorinated GHGs, are not currently included in Part 98. We recognize that CEMS may not be practicable at this time for all sources covered by the reporting rule, and therefore may not be an option in all circumstances where a reporter is concerned about the public disclosure of data they consider sensitive. As described in the deferral proposal preamble (75 FR 81350, 81354), we also received numerous comments from industry indicating that they were not aware that inputs to emission equations would not be eligible for confidential treatment. Many also indicated that had they known that inputs could not be withheld from the public by EPA, they would have installed CEMS in January 2010. Such facilities may also not have used CEMS in 2011 and would need additional time to purchase, install, and certify new CEMS. As described in the preamble to today's action, this deferral provides EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and to take further action if necessary.

Commenter Name: Arthur N. Marin, Executive Director
Commenter Affiliation: Northeast States for Coordinated Air Use Management (NESCAUM)
Document Control Number: EPA-HQ-OAR-2010-0929-0017.1
Comment Excerpt Number: 1

Comment: NESCAUM does not support EPA's response to comments received on the Mandatory GHG Reporting Rule (74 Fed. Reg. 56260) in which certain entities asserted some data they would be required to report as inputs to emissions equations are confidential. In response, EPA proposes to defer the reporting date for inputs to emission equations for *all* direct emitters. The NESCAUM states believe this approach is too broad, and that widespread and indiscriminate deferral of *all* reporting input data used in emissions equations is unwarranted. Selective deferrals should be limited to entities with specific demonstrated confidentiality concerns. Furthermore, sources that already report these data inputs to the National Emissions Inventory or other federal, state, and public programs should be ineligible for deferrals.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 12

Comment: Even if EPA had legal authority to defer reporting, doing so is inequitable and unnecessary. Companies concerned with reporting emission equation inputs can cure their own problems without undermining the rule, because they are free to directly measure their emissions and could have prepared to do so years ago. The public should not suffer to protect companies with poor business judgment.

EPA proposed the reporting rule in spring 2009, 74 Fed. Reg. 16,448 (Apr. 10, 2009) and finalized the rule that autumn, 74 Fed. Reg. 52, 260 (Oct. 30, 2009).). Since that time it has finalized additional elements of the rule, to address sectors initially missing from the October 2009 rule. Final Rule, 75 Fed. Reg. 39,736 (July 12, 2010) (Magnesium Production, Underground Coal Mines, Industrial Wastewater Treatment, and Industrial Waste Landfills); Final Rule, 75 Fed. Reg. 74,458 (Nov. 30, 2010) (Petroleum and Natural Gas Systems); Final Rule, 75 Fed. Reg.75,060 (Dec. 1, 2010) (Injection and Geologic Sequestration of Carbon Dioxide). During that process, industry groups generally urged EPA to avoid requiring them to purchase and install continuous emissions monitoring systems ("CEMS") or other direct measurement devices, preferring to report using relatively less expensive emissions equations-based approaches. *See, e.g.*, 74 Fed. Reg. at 56,280. EPA dismissed objections that a move away from direct measurement could imperil the rule's accuracy, and followed the course industry preferred, writing:

> [T]he selected monitoring approach that combines direct measurement and facility-specific calculations is warranted even though the rule does not contain any emissions limits or emissions reduction requirements. EPA remains convinced that this approach strikes an appropriate balance between data accuracy and cost. It makes use of existing data and methodologies to the extent feasible, and avoids the cost of installing and operating CEMS at numerous facilities.

Id. Reporting industries thus received significant regulatory relief. If they opted not to install CEMS – and most did so – EPA would allow them to estimate their emissions with equations instead. But, having received this relief, the polluters now push farther, to argue that they should *both* be allowed to avoid direct measurement with emissions equations *and* render the equations unreliable by refusing to share their measured inputs with EPA or the public. It is inequitable, and illegal, for EPA to grant both favors.

Some reporters nonetheless told EPA that "had they known that EPA would later propose that inputs to emission equations qualify as emission data that must be made available to the public," they would have "commented more critically" on the proposed rule, or installed CEMS. 75 Fed. Reg. at 81,354. By July 2010, when EPA proposed its CBI determinations, industry commenters complain, it was too late to install CEMS for 2010, and so they were "locked in" to reporting emissions inputs. *Id.* These complaints are disingenuous in the extreme.

EPA's determination that emissions equation inputs were "emission data" was utterly unsurprising. As we have outlined above, these inputs are obviously "necessary to determine" emissions, and so necessarily must be publicly disclosed. Industry could have gathered as much from the regulations – and certainly should have so concluded based on Congress's mandate for a public and transparent reporting system and EPA's many statements in the proposed and final rules that it was driving towards maximum public disclosure. Only the very unobservant could

possibly have been startled when EPA continued in the same course it had been following since its first draft rule. If a company has erred in this way, it is not EPA's responsibility to fix its problems, and such errors cannot justify violating the public's statutory right to vital information under section 114.

Response: We disagree with the commenter that it is inequitable and unnecessary to defer reporting of inputs; we believe that the deferral will allow for a well-balanced consideration of both the importance of protecting potentially sensitive data and our commitment to the GHG Reporting Program's transparency and accuracy. As explained in the deferral proposal, in response to EPA's proposed determination in the July 7, 2010 CBI proposal that inputs to equations are emissions data (which has not been finalized), EPA received comments raising serious concerns regarding public availability of these data elements that warrant further evaluation before EPA collects such data. 75 FR 81350, 81354. This final action allows EPA adequate time to fully evaluate the potential competitive harm that may result if inputs are publicly available, and whether emissions can be calculated or verified using additional methodologies, consistent with the transparency and accuracy goals of Part 98.

For the response to the comment that the inclusion of direct monitoring methods (CEMS) in some Part 98 subparts makes the deferral unnecessary, please see the response to comment EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Catharine A. Fitzsimmons, Chief Air Quality Bureau
Commenter Affiliation: Iowa Department of Natural Resources (DNR)
Document Control Number: EPA-HQ-OAR-2010-0929-0014.1
Comment Excerpt Number: 1

Comment: Reporting data elements in 40 CFR 98 Subpart A Table A-6 should not be further deferred because they are fundamental to existing Clean Air Act programs. […] The Department is required by Iowa Code 455B.152 and 455B.104 to collect GHG emissions data and submit an annual statewide GHG inventory for the previous year to the Governor and Iowa General Assembly by December 31. In addition, 40 CFR 51 - Air Emissions Reporting Requirements (AERR) and its predecessor, the Consolidated Emission Reporting Rule (CERR) require State, Local, and Tribal air agencies to report air emissions from affected sources in their jurisdictions either annually or triennially [Emissions data from Type A sources (the largest sources) is required to be submitted every year, while emissions data from Type B sources is reported every three years per 40 CFR 51.30] to EPA for the National Emissions Inventory (NEI). The data collected is summarized and published every three years by EPA on its website [http://www.epa.gov/ttn/chief/eiinformation.html].

Knowledge of specific data elements used to calculate emissions is also crucial. The Department requires the data elements of activity/throughput and heat input to be reported by Iowa point sources in their criteria and hazardous air pollutant (HAP) emission inventories. The Department also required these data elements to be reported as part of Iowa's GHG reporting requirements for emission years 2007 – 2009. In addition, many Iowa pre-construction and New Source

Review (NSR) permits include operating limits for which facilities must report activity/throughput data[. . .].

Furthermore, the Department required reporting of these data elements as part of Iowa's GHG reporting program for three years without receiving a single request that the data be held confidential. The data is publically available and summarized in annual emissions reports posted on the Department's website [http://www.iowadnr.gov/air/prof/ghg/ghg.html]

Response: EPA thanks the commenter for their input. Today's action does not establish the confidentiality status of any inputs to emission equations; rather, as described in the preamble to this action, it provides EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and to take further action if necessary. In today's final rule, EPA is requiring reporting of some inputs to equations by March 31, 2013, a year sooner than proposed. These data elements are those for which EPA either is further along or able to proceed more quickly in the evaluation process. However, for the remaining inputs, EPA either is less far along or the evaluation processes are more time-consuming. EPA is therefore deferring the reporting deadline for these inputs to March 31, 2015. For the list of deferred inputs to emission equations and the reporting deadline for each input, please see 40 CFR part 98, subpart A, Tables A-6 and A-7. EPA defers assessing this comment as it relates to the confidentiality status of any inputs to emission equations to action on its ongoing process for evaluating inputs, as described in the docket memorandum, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations."

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 16

Comment: What's particularly troubling about all of this of course is that the proposed delay arises from industry comments raising what EPA itself as only, quote, "potential problems," offered, quote, without, quote, "sufficient specificity." Some members of industry are worried as we've seen today about reporting's impacts on competitiveness, but still, even in what I think referred today, cannot really say how, certainly for the vast majority of data points identified. These concerns should not lead EPA, therefore, to a lengthy three-year blanket hold on reporting of these thousands of data points for at least four reasons. So I, like everyone else, have a numbered list.

First, these late-raised concerns are not news. Listening to the testimony today, I'm reminded of the scene in Casablanca where the police are shocked, shocked, that gambling is occurring in a casino. Industry has known since the reporting rule was proposed almost two years ago that they would be reporting using emissions equations, and that inputs to these equations would likely be deemed reportable emission data as they are naturally necessary to calculating emissions. EPA's choice, moreover, to use equations rather than broadly to require direct measurement was welcomed by many industries as a less expensive alternative to direct measurement. It was pretty

broadly hailed in fact. Having taken this deal, industry cannot now demand that they not only be allowed to escape directly measuring its pollution, that even be given a pass in showing its work as it completes equations-based reporting. Emissions reporting just cannot be a black box system. Industry can choose between direct reporting and emissions equations, but it cannot choose [inaudible] emissions equations without meaningful verification of public disclosure. If large polluters wish otherwise, they had ample reason and chance to raise these concerns long ago. They are not now entitled to a panicked three more years of delay in relation to rules and results they're familiar with at the latest in 2009.

Response: Please see the response to comment EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 20

Comment: Placing the burden of proof squarely on industry, as it has to its credit in the call for information, EPA should conduct a thorough review of which data elements have been compellingly shown to raise competitiveness concerns before it finalizes the deferral rule. Doing so will almost certainly allow EPA to significantly limit the scope of the role, if it is finalized at all.

Response: Please see the response to comment EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 23

Comment: EPA and the public are on the verge of benefiting from the Agency's genuinely hard work. And I don't want to shortchange [inaudible] criticism of this proposal. I think it's misguided, but I think the rule as a whole is quite remarkable. And it would really be a pity at this point a few months away from seeing its fruits to pull back and put the rule into what will initially be a three-year delay, what will likely strike longer and create a continuing target for industry to come up with putative competitiveness concerns that delay the vital interest that public has in knowing what's happening to its atmosphere.

Response: EPA thanks the commenter for their input. We note that this final action defers the reporting deadline only for inputs to emission equations and does not delay the reporting of emission amounts and other information required under Part 98. As EPA emphasized in the preamble to the December 27, 2010 deferral proposal, EPA is committed to transparency as well as accuracy in the GHG Program. 75 FR 81350, 81355.

Commenter Name: Catharine A. Fitzsimmons, Chief Air Quality Bureau
Commenter Affiliation: Iowa Department of Natural Resources (DNR)
Document Control Number: EPA-HQ-OAR-2010-0929-0014.1
Comment Excerpt Number: 2

Comment: GHG emissions cannot be verified without knowing the inputs to the equations.

It is critical that EPA, State/Local/Tribal air agencies, and the public have all the information needed to verify reported GHG emissions from sources that do not use continuous emission monitors (CEMS). In many sectors, sources will now report only the total GHG emissions from a process, while reporting of the data elements used to calculate the emissions is deferred. This provides no mechanism for EPA, State/Local/Tribal air agencies, or the public to verify the reported GHG emissions.

The Department acknowledges that EPA plans to do on-site visits to quality check GHG emissions calculated from the deferred inputs of equations. The Department believes this is an inefficient method to quality assure reported GHG emissions and will only verify emissions from a small percentage of sources. Requiring the inputs to equations provides EPA, State/Local/Tribal air agencies, and the public with the data needed to easily verify reported emissions.

Response: We thank the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.

Commenter Name: Kevin P. Bundy, Senior Attorney
Commenter Affiliation: Center for Biological Diversity
Document Control Number: EPA-HQ-OAR-2010-0929-0022.1
Comment Excerpt Number: 1

Comment: The Center strongly disagrees with EPA's proposed rule, which would have the effect of deferring for three years collection of data essential to the verification of greenhouse gas emissions reported pursuant to the Mandatory Greenhouse Gas Reporting Rule. EPA is proposing to exempt reporting entities from providing certain input data and other critical information, based on what EPA itself acknowledges are generalized industry complaints about confidentiality rather than specific, proven concerns. Input data, for example, is critical to the emissions calculations at the heart of the Reporting Rule. *See, e.g.,* 40 C.F.R. § 98.33 (establishing formulas for emissions calculations). The effect of the rule, therefore, will be to make it impossible for EPA or members of the public to verify reported emissions from a wide range of sources. This undercuts the purpose of the Reporting Rule and greatly diminishes its value to policy-makers.

Response: We thank the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.

Commenter Name: C. A. U. Sigurdson
Commenter Affiliation: Private Citizen
Document Control Number: EPA-HQ-OAR-2010-0929-0013.1
Comment Excerpt Number: 2

Comment: Climate change is the most pressing problem we face today. Gathering comprehensive data on the sources of greenhouse gases is a crucial first step towards fighting it. As a concerned citizen, I would rather see the EPA stand firm in their decision to collect the data and focus on reducing greenhouse gas emissions than spend valuable time accommodating businesses that ought to have made their complaints more specific in the first place. Since the purpose of the delay is to collect industry comments, I urge that if businesses are not already providing the information that the EPA has requested this rule should not be enacted and the EPA should move forward in reporting emissions input data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1 and EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 7

Comment: Information that should be reported and released as soon as possible is information necessary to verify reported emissions data. Under EPA's proposal, the necessary data for verification would not even be provided to EPA until 2014, calling into question the integrity of the entire database of emissions information until that time.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.

Commenter Name: Kevin P. Bundy, Senior Attorney
Commenter Affiliation: Center for Biological Diversity
Document Control Number: EPA-HQ-OAR-2010-0929-0022.1
Comment Excerpt Number: 3

Comment: EPA fails to consider the extent to which the input data subject to deferral under the proposed rule may be publicly available anyway (thus making them ineligible for trade secret or any other confidentiality protection), through the Title V permitting process or state greenhouse gas reporting and monitoring requirements. *See, e.g.*, 40 C.F.R §§ 70.5(c), 71.5(c). It is arbitrary and unreasonable to defer reporting requirements based on confidentiality concerns when the data subject to the deferral are not, in fact, confidential or have not otherwise been protected from disclosure.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 5

Comment: We strongly disagree with EPA's proposal to defer reporting of all data elements that are inputs to emissions equations until 2014. Based on an initial review of the list of affected data elements, it appears that some basic information such as fuel quantities and characteristics would not be reported until 2014, if at all. It also appears that some or much of this information is available from other sources, could be useful to a variety of stakeholders that are attempting to develop control strategies, and may be necessary for verification. In general, data elements that have any of these characteristics, including data elements that are inputs to emissions equations, should be reported and made available to the general public.

The first category of information that should be reported and released as soon as possible is information that is available to the public elsewhere. For example, some information about fuel quantities and characteristics falls into this category. [Footnote: Some specific examples are included in the attached response to EPA's *Call for Information: Information on Inputs to Emission Equations Under the Mandatory Reporting of Greenhouse Gases Rule.*] To the extent that this information is available from other sources (e.g., US Energy Information Administration, other EPA reporting programs, state reporting programs, voluntary reporting programs, etc.) it is not appropriate to delay submittal of this information to EPA or treat this information as confidential in the context of the GHG Program. While there may be somewhat less value in collecting and releasing information that is available elsewhere, there is little or no basis for protecting it from release by EPA.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 16

Comment: Dr. Ranajit Sahu, a mechanical engineer with over twenty years of experience in these industry sectors and a frequent technical consultant to EPA, reviewed the data elements in the above referenced subparts, which cover sectors with particularly large greenhouse gas emissions. He concluded that EPA’s proposed deferral is unjustified. We include his general comments here and attach spreadsheets he prepared which consider each data element in each of these rules.[notes regarding each data element have been extracted from the spreadsheets as separate comments.] As the spreadsheets show, Dr. Sahu has in certain instances found that

EPA's proposed deferrals cover information that is already publicly disclosed, , and in others has shown why a deferral is not appropriate. We incorporate Dr. Sahu's report by reference, including his analysis of each and every data element listed therein.

i. Dr. Sahu's General Conclusions

Dr. Sahu's general analysis of the rule is attached as Ex. 36. Dr. Sahu concludes that EPA's rule is "a misguided effort with poor support." He explains that, in most cases:

- data elements themselves or very close variants (typically the same quantity but over a smaller or larger time interval) have been available/are available in prior reporting to agencies and the public. They are available by routine searches of public databases or the internet;
- data elements have been reported in other countries by similar industries . . .;
- data elements have been reported to the US government pursuant to ICR requests, responses to which are available on public dockets such as EPA dockets for rule making;
- data elements (such as location information, emissions unit identification, and actual production rates during representative time periods) are routinely available publicly in documents such as source test reports submitted to various agencies;
- data elements are reported in industry statistical publications (example PCA ER393 for the cement industry);
- data elements are reported to industry associations, which potentially provides access to direct competitors. For example, the API and the SMA collect and provide summary statistical data, and the underlying data is available to members of these trade associations;
- data elements (such as molecular weights, heating values, etc.) can be obtained from standard references;
- data elements can be inferred from other data elements by reasonably familiar technically knowledgeable individuals using standard rules of thumb (for example, making estimates of raw materials, clinker produced, or cement produced in cement kilns; or steel production versus raw materials usage) [that is, even if EPA shields some data elements, industry experts will be able to infer them];
- data elements (such as source dimensions) have been reported since they are inputs for other analyses such as dispersion modeling.

He adds that:

> Some of the data elements (examples include rates of usage of raw materials or rates of production) can be estimated using direct surveillance of incoming deliveries (types and frequencies and changes of these over time), outgoing transfers, and/or inventory buildup – even by members of the public.
>
> Of course, there are still other gauges of overall business health such as staff additions/reductions, resources spent on maintenance, etc. that can provide clues to the discerning competitor.

Thus, as the attached spreadsheets show in detail, EPA is, for the most part, proposing to defer collecting data that is already publicly available.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 8

Comment: Should EPA decide to defer reporting of any information necessary for verification, EPA should add a third party verification requirement to ensure the accuracy of the database in the interim. A possible variation would exempt facilities that choose to report all data elements that are inputs to emissions equations from the third party verification requirement.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31

Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 9

Comment: EPA could limit the use of deferral as a mechanism for dealing with confidentiality to cases in which industry has provided an alternative methodology that adequately protects the integrity and usefulness of the database, and limit the time of the deferral to the minimum amount of time required to incorporate the alternative methodology into regulation.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 15

Comment: Although industry groups claim that disclosure of some data elements pursuant to the reporting rule would divulge CBI to the public, a close review of the rule's data elements shows otherwise. Thus, EPA cannot justify this rule proposal based on evidence in the record. Our review, informed by extensive expert analysis, demonstrates that all or most of the data elements are either already in public view in some capacity or competitively irrelevant. Though

the burden of justifying nondisclosure falls upon industry, not the public, our analysis shows why industry cannot carry its burden. Any industry complaint of embarrassment or discomfort with the disclosure of data, or industry preference not to share data, simply cannot justify its non-disclosure in view of the robust public reporting requirement of section 114 of the Clean Air Act.

Generally, the data elements EPA proposes to defer do not qualify as a "trade secret" or "confidential business information." Under FOIA, 5 U.S.C. § 522(b)(4), which provides relevant precedent for EPA's interpretation of section 114(c) of the Clean Air Act, 40 C.F.R. § 2.201(e), a "trade secret" is "a secret, commercially valuable plan, formula, process, or device that is used for the making, preparing, compounding, or processing of trade commodities and that can be said to be the end product of either innovation or substantial effort." *Pub. Citizen Health Research Gr. v. FDA*, 704 F.2d 1280, 1288 (D.C. Cir. 1983); *see also Nw. Coal. for Alternatives to Pesticides v. Browner*, 941 F. Supp. 197 (D.D.C. 1996). This term "incorporate[s] a direct relationship between the information at issue and the productive process." *Id.* Commercial information is "confidential" under FOIA if disclosure is likely to cause substantial harm to the competitive position of the person from whom the information was obtained. *Nat'l Parks & Conserv. Ass'n v. Morton*, 498 F.2d 765, 770 (D.C. Cir. 1974). As the D.C. Circuit has further explained, to be exempt from disclosure as a trade secret under FOIA exemption four, "an identified harm must 'flow[ ] from the affirmative use of proprietary information by competitors.'" *United Technologies Corp. v. U.S. Dept. of Defense*, 601 F.3d 557 (D.C. Cir. 2010)(quoting CNA, 830 F.2d at 1154). FOIA exemption four provides the test for 40 C.F.R. § 2.208. *Worthington Compressors, Inc. v. Costle*, 662 F.2d 45, 52 (D.C. Cir. 1981) (comparing FOIA exemption 4 and this regulation and explaining that "although the substantive criteria set forth in the regulations do not exactly mirror those relevant under Exemption 4, the essential test is the same: whether release of the requested information, given its commercial value to competitors and the cost of acquiring it through other means, will cause substantial competitive harm to the business that submitted it.")[Footnote: To consider the "substantial competitive harm" test, "[t]he court considers how valuable the information will be to the requesting competitors and how much this gain will damage the submitter." *Worthington*, at 51.]

Industry has not passed these substantial hurdles and cannot do so, as the data at issue does not meet these legal definitions.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

1.3 Legal Comments Concerning Deferral

Commenter Name: Kevin P. Bundy, Senior Attorney
Commenter Affiliation: Center for Biological Diversity
Document Control Number: EPA-HQ-OAR-2010-0929-0022.1
Comment Excerpt Number: 2

Comment: EPA's proposal also lacks a sound legal basis. Whether and how information may be withheld from the public based on alleged confidentiality concerns is specified by statute and in pertinent regulations under a system that has been in place for years (and is being retained for pollutants other than greenhouse gases). Specifically, Clean Air Act Section 114(c), 42 U.S.C. § 7414(c), declares that all monitoring and reporting data provided to EPA "shall be made available to the public." Particularized and specifically identified "records, reports or information" or "a particular part thereof" may be deemed confidential only "upon a showing satisfactory to the Administrator . . . that [any such data] would divulge *methods or processes entitled to protection as trade secrets . . .*" *Id* (emphasis added). In other words, any entity requesting confidential treatment must bear the burden of demonstrating why particular data it wishes to shield from disclosure does in fact constitute a trade secret, and why disclosure would be harmful. Because, *inter alia,* the establishment of a trade secret claim requires specificity and a detailed analysis, neither the statute nor the pertinent regulations allow for a sweeping delay in disclosure, or a generalized carve-out of data from disclosure, unless that burden is met in each instance.

Response: EPA disagrees with this comment. Title II of the 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161) requires EPA to establish "mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors" of the U.S. economy through publication of a draft rule within 9 months of the promulgation of the Appropriations Act and a final rule within 18 months, a task EPA accomplished in its promulgation of the Greenhouse Gas Reporting Program under Part 98. Congress left the Agency discretion in determining the specific data to be reported, timing of data reporting, and the methods of data calculation and verification. Today's action affects only the reporting deadline of the data elements identified as inputs to emission equations, which EPA has discretion to establish. Today's action does not establish the confidentiality status of any inputs to equations; rather, as described in the preamble to this action, it provides EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations were made publicly available and to take further action if necessary. During the deferral period, reporters must continue to report GHG emission levels and all other data required under Part 98, including data essential to verification but not identified as inputs to emission equations.

Commenter Name: Kevin P. Bundy, Senior Attorney
Commenter Affiliation: Center for Biological Diversity
Document Control Number: EPA-HQ-OAR-2010-0929-0022.1
Comment Excerpt Number: 4

Comment: The proposed rule provides no cogent rationale for departing from this clear statutory scheme [Clean Air Act section 114], or for deferring data reporting requirements for three years or otherwise. The rule similarly fails to identify any statutory authority for refusing to collect data essential to verification of covered entities' compliance with the Reporting Rule. The broad and generalized concerns voiced by certain commenters do not meet the statutory requirements. To the contrary, when emitters fear the disclosure of actual trade secrets [Footnote: The statute allows confidential treatment of trade secrets but not simply of "sensitive business information" or even of information that may cause competitive harm. The proposed rule misses

the mark by contemplating confidentiality protection based on such flawed, subjective standards that can easily encompass data necessary to a functioning pollution control system.], they can already avail themselves of well-understood procedures to protect such data. Moreover, these ex-post-facto comments and concerns are time-barred, as they should have been raised when the Agency finalized the Mandatory Greenhouse Gas Reporting Rule.

Response: Please see the responses to comments EPA-HQ-OAR-2010-0929-0016, excerpt 1, and EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31. EPA disagrees that industry comments on the sensitivity of inputs to emission equations are time-barred. These comments were timely raised on the April 10, 2009 proposed Greenhouse Gas Reporting Rule (74 FR 16448; docket EPA-HQ-OAR-2008-0508); when EPA finalized the Reporting Rule, we expressed our intent to address confidentiality determinations in a future action (see Section II.R of the preamble to the final rule, 74 FR 56260, 56287, October 30, 2009). Comments about the sensitivity of inputs to emission equations were also timely raised on the July 7, 2010 proposed confidentiality determinations (75 FR 39094; docket EPA-HQ-OAR-2009-0924) and the July 27, 2010 supplemental proposal (75 FR 43889; docket EPA-HQ-OAR-2009-0924).

Commenter Name: Kevin P. Bundy, Senior Attorney
Commenter Affiliation: Center for Biological Diversity
Document Control Number: EPA-HQ-OAR-2010-0929-0022.1
Comment Excerpt Number: 5

Comment : The Center is concerned that EPA's proposed approach with respect to the Reporting Rule may undermine compliance with newly effective regulations applying the Prevention of Significant Deterioration and Title V programs to greenhouse gases. The type of input data shielded by the proposed rule—including information on heat rates, emissions factors, and similar data—may be important in determining potential to emit greenhouse gases for new and modified facilities subject to PSD and Title V permitting. Again, if data are treated as confidential and shielded from disclosure, it may be very difficult for either EPA or the public to determine whether a proposed new or modified facility will emit greenhouse gases in excess of Tailoring Rule thresholds.

Response: This final action simply defers the deadline for reporting inputs to equations under Part 98. This action does not speak to the confidentiality of these data elements, nor does it affect the authorities or rights that EPA, permitting agencies, and the public have under PSD and Title V permitting programs to obtain information relevant to permitting decisions.

Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 6

Comment: We strongly disagree with EPA's proposal to defer reporting of all data elements that are inputs to emissions equations until 2014. Based on an initial review of the list of affected data elements, it appears that some basic information such as fuel quantities and

characteristics would not be reported until 2014, if at all. It also appears that some or much of this information is available from other sources, could be useful to a variety of stakeholders that are attempting to develop control strategies, and may be necessary for verification. In general, data elements that have any of these characteristics, including data elements that are inputs to emissions equations, should be reported and made available to the general public.

The second category of information that should be reported and released as soon as possible is information that is not available elsewhere and could be useful for developing policies to control GHG emissions, including state and federal regulatory policies, and federal legislation. While there may be some cases and data elements for which special treatment would be appropriate to protect businesses (e.g., data elements that would reveal trade secrets and are not emissions data) [Footnote: Section 114 of the Clean Air Act requires release of all emissions data but allows EPA to withhold other information that "if made public, would divulge methods or processes entitled to protection as trade secrets." Under the Clean Air Act, emissions data, which must be released, includes "Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emissions."], EPA should carefully review the list of data elements that are inputs to emissions equations, and defer reporting of these elements only if the following three conditions are met: 1) the regulated community has identified information that is unlikely to be useful for policy development; 2) no other mechanism for protecting the information is available; and 3) credible and specific concerns about the adverse impacts of release have been clearly documented by the regulated community. Timely public release of data should be the general rule, subject to appropriate measures to protect sensitive information only when absolutely necessary. The GHG Reporting Program was explicitly authorized by Congress [Footnote: From http://www.epa.gov/climatechange/emissions/ghgrulemaking.html:"In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161)[Section 6, Division F, Title II at http://frwebgate.access.gno.govicgi-bin/getdoc.cgi?dbname=110tong bills&docid—B2764enr.txt.pdf], EPA has issued 40 CFR Part 98, which requires reporting of greenhouse gas (GHG) emissions from large sources and suppliers in the United States. Part 98 is intended to collect accurate and timely emissions data to inform future policy decisions."] to gather information that may be useful to EPA and the public; the fact that some businesses would prefer to protect information about processes that emit greenhouse gases does not outweigh the important need to have information available so policymakers can use the information to begin to address GHG emissions.

Response: For the response to this comment, please see the responses to comments EPA-HQ-OAR-2010-0929-0016, excerpt 1, and EPA-HQ-OAR-2010-0929-0022.1, excerpt 2.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 9

Comment: Because it must require reporting from all sectors of the economy, EPA must collect emission data from all sources above reporting thresholds in those sectors. Once it has collected

that data, it must disclose it to the public. There is no room in this simple system for EPA's "deferral." EPA cannot avoid its basic public disclosure requirements by refusing to collect information at all. Such a refusal subverts the spirit of its reporting rule mandate and is contrary to the plain text of Section 114 of the Clean Air Act. Congress explicitly directed EPA "to use its existing authority under the Clean Air Act," thus incorporating section 114 into the regulatory mandate. 2008 Appropr. Act. explanatory statement at 1254; 2009 explanatory statement at 1144. EPA's charge from Congress thus plainly includes its intention that EPA collect and then fully disclose to the public the greenhouse gas emission data collected, as section 114(c) requires. Moreover, section 114 directs that this data must usefully support air pollution control, while EPA's proposal would undermine those purposes. Indeed, it is unclear what purpose the collection of these data could serve, if the statute were interpreted as allowing industry to keep these data private, rather than being shared both with the public and with policymakers.

Notably, EPA does not, and cannot, justify its deferral with reference to its rules (which are not at issue in these actions) defining emission data. Instead, EPA writes only that it received "serious concerns regarding the public availability of data in the inputs to emission equations category." 75 Fed. Reg. at 81,354. Some businesses posited that disclosures could "cause serious competitive harm," *id.*, albeit in "general statements" offered without specific proof, 75 Fed. Reg. at 81,368. Those factors are not lawful considerations except to the extent industry can meet the confidential business information standard for non-disclosure of non-emission data under section 114 and its regulations. As commenters demonstrate below, industry cannot and EPA has not done so. Therefore, EPA must not delay data collection and disclosure. Although EPA claims it needs to stop data collection in order to develop a "well-balanced" program, addressing disclosure needs and competitiveness concerns, *see* 75 Fed. Reg. at 81,355, Congress has already struck that balance by mandating public disclosure of emission data. Section 114, its implementing regulations, and the reporting rule charge mandates disclosure of emission data. EPA has no authority to question that choice.

Response: We disagree that EPA is attempting to avoid its basic public disclosure requirements by refusing to collect information. Today's action defers the deadline for reporting data elements categorized as inputs to emission equations but does not alter the requirement to report these inputs. As we said in the December 27, 2010 deferral proposal, "If additional approaches to calculate or verify emissions are viable, EPA may determine that it is not necessary to collect certain highly sensitive inputs and propose to amend Part 98 accordingly . . . . Should EPA decide that it is necessary to amend Part 98 as a result of this evaluation, we would promulgate any such amendment through a notice and comment process." 75 FR 81350, 81355.

EPA disagrees that the deferral subverts the spirit of the reporting rule mandate and that it is contrary to the plain text of Section 114 of the Clean Air Act. Please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 6.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 13

Comment: But even if EPA had the discretion to come to the aid of companies which failed to take sensible precautions, deferring all data collection until 2014 makes no sense at all. The reporting rule already contains direct measurement provisions for each industry it covers. All reporters need do to correct their problems is to switch to this tier of reporting. They may do so with no regulatory action from EPA, beginning with the 2011 reporting year. At the most, then, if EPA could defer reporting, it might do so only for the 2010 year – not for subsequent years, when direct measurement is available.

If EPA, in the meanwhile, wishes to tweak the reporting rule in other ways so as to make emissions equation less demanding, it can then do so without any further deferral. While EPA conducts any subsidiary rulemaking, direct emissions measurement will continue, solving any CBI concerns.

In the meantime, if EPA leaves the deferral in place, the public, including the undersigned organizations and their members, will suffer. Even if EPA eventually releases the deferred data, recognizing that they are not CBI, the denial of access to these data for three years, beyond the delay that had already occurred to finalize the rules in the first place, will leave critical gaps in our understanding. We and policymakers need these data now in order to begin analyzing 2010 emission data and using this to take action to protect our communities from global warming. For instance, we intend to analyze greenhouse gas preconstruction permits to determine whether sufficiently rigorous controls are being required. This task requires considering the emissions of other facilities in a given industry sector, and will be significantly more difficult if we cannot reliably determine those emissions, or analyze their sources. EPA, and other permitting agencies, will likely have similar difficulties. We cannot effectively advocate for greenhouse gas controls without accurate information on the sources of these emissions – as Congress recognized when it directed EPA to develop the reporting system.

Response: For the response to this comment, please see the responses to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1, EPA-HQ-OAR-2010-0929-0016, excerpt 1, and EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.

Commenter Name: David Thornton, Minnesota, Co-Chair and James Hodina, Cedar Rapids, Iowa, Co-Chair
Commenter Affiliation: National Association of Clean Air Agencies (NACAA)
Document Control Number: EPA-HQ-OAR-2010-0929-0032.1
Comment Excerpt Number: 1

Comment: NACAA has several concerns with the Proposed GHG Reporting Deferral. Chief among these is that the proposal is overly broad and would inappropriately allow sources to effectively withhold emissions data that are integral to the GHGRP and other reporting programs and required to be released to the public [. . . .] Given the Clean Air Act requirement to publicly release emissions data, including data elements that are inputs to emissions equations, EPA oversteps its bounds by proposing to defer the reporting of all data elements that are inputs to emissions equations under the GHGRP while it considers confidentiality determinations. Such a broad deferral is unnecessary and unwarranted.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1 and EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 15

Comment: First of all, as you know, the greenhouse gas reporting program is an extraordinarily impressive effort. When reporting kicks in from most sources a few weeks from now, it will give us the clearest national picture ever of the origins of the warming pollution, information central in our view – and I think most people's – making good policy. But thanks to the proposed rule issued today, neither EPA nor the public may see thousands of crucial data points until 2014. The duration and scope of this delay is practically unwarranted and raises substantial legal questions. We believe EPA can substantially reduce and perhaps eliminate any such delay with their careful review of the data in question.

So let me start with first principles. Congress has twice directed the Agency to put reporting in place for, quote, "all sectors of the economy of the United States not later than June 26, 2009." Similarly in the Clean Air Act, Congress made the clear choice that all emission data that's data necessary to calculate emissions simply has to be reported to the public. The CBI question does not enter into it. And where CBI does enter into it, that is not emission data. The presumptions is very, very strongly in favor of disclosure.

All of which is to say I think there are genuine questions whether or not this delay is legal at all and whether or not you can be thinking about these questions at all. Congress has been very clear that the atmosphere as a public commons is a matter of vital public concern. The public deserves to know who's polluting it. And that's really what's at stake here. So in our view, delaying in reporting for five years past Congress's deadline for more than thirty sectors including the industries which are the largest carbon polluters is more or less unsupportable. We're aware of course that companies will report their final emissions figures. But given that those figures are reached through a system of equations, reporting only the final figures gives us basically a black box rule. It's unverifiable. It's far less useful. It's not consistent with Congress's mandate.

Response: For the response to this comment, please see the responses to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1, EPA-HQ-OAR-2010-0929-0016, excerpt 1, and EPA-HQ-OAR-2010-0929-0022.1, excerpt 2.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 6

Comment: Indeed, in its proposed confidentiality determinations themselves, EPA again strongly stated that "[p]ublic release of the information collected under Part 98 that are emission data or non-[confidential business information ("CBI")] is important because it ensures transparency and promotes public confidence in the data." 75 Fed. Reg. 39,094, 39,099 (July 7, 2010) (proposed CBI rule). EPA went on to emphasize that such information was vital to "policy makers, the public, and industry" as they all work to understand and control emissions. *Id.* The agency, in short has, in line with its statutory mandates, made unequivocal pledges of public disclosure and public participation in developing and sharing reporting rule data, and must see them through. We have, of course, emphasized as much in our many earlier comments to EPA on this matter, which we incorporate by reference into these comments.

Section 114 of the Clean Air Act further reinforces EPA's authority and obligation to the public in regard to the data collected under the GHG reporting rules. Under section 114, EPA has broad authority to collect data and information in order to carry out the purposes of the Clean Air Act. For example, it grants EPA broad authority to require reporting in order to develop any state or federal implementation plan or any new source performance standard, or to carry out any other provision of the Clean Air Act, provided that that data EPA seeks is "information necessary for the purposes set forth in this subsection," 42 U.S.C. § 7414(a). Here, EPA is seeking further to develop and to maintain greenhouse gas control policies now in force, including under the preconstruction permitting program for greenhouse gases, and the new source performance standards for major sources, now under development, as well as numerous other necessary greenhouse gas policies under development and consideration. Thus, to the extent EPA seeks to use section 114 to meet its reporting rule mandate, the information it collects must usefully inform and support the Clean Air Act's greenhouse gas pollution control objectives.

This information generally must be publicly available. Section 114 provides that "[a]ny records, reports or information" EPA obtains "shall be available to the public." 42 U.S.C. § 7414(c). The only instance in which EPA may withhold any data is when a reporter makes a satisfactory showing that this information, if disclosed, would "divulge methods or processes entitled to protection as trade secrets." [Footnote: Section 208 of the Clean Air Act, 42 U.S.C. § 7542, which gives EPA authority for some of its data collection efforts in the reporting system contains identical provisions. Our arguments with regard to portions of the rule supported by section 114 of the Act thus apply equally to portions of the rule supported by section 208.] *Id.* EPA carefully scrutinizes such claims, which require extensive evidentiary support to succeed. *See e.g.* 40 C.F.R. § 2.204 *et seq.* The Act directs that all "emission data" must be disclosed even if it might otherwise be treated as a trade secret. 42 U.S.C. § 7414(c); 40 C.F.R. § 2.301(f).

Response: In enacting Title II of the 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161) to require that EPA promulgate a rule for greenhouse gas emissions reporting, Congress left the Agency discretion in determining the specific data to be reported, timing of data reporting, and the methods of data calculation and verification. Further, as the commenter notes, EPA has broad authority to collect information under section 114 of the CAA. The commenter also correctly notes that while section 114 provides that "[a]ny records, reports or information" EPA obtains "shall be available to the public." 42 U.S.C. § 7414(c), it exempts from such disclosure information entitled to confidential protection. EPA believes that the Greenhouse Gas Reporting Program should employ well-balanced consideration of both mandates under section 114, i.e., both public availability of information and protection of

information entitled to confidential treatment. Today's action does not establish the confidentiality status of any inputs to emission equations, nor does it authorize withholding of any Agency record without complying with CAA section 114 or EPA's CBI regulations. Rather, this final action simply extends the reporting deadline for inputs to equations to provide EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and whether in those cases emissions can be calculated or verified using additional methodologies, consistent with the transparency and accuracy goals of Part 98. During the deferral period, reporters must continue to report GHG emission levels and all other data required under Part 98, including data essential to verification but not identified as inputs to emission equations. Please also see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 3

Comment: We are writing because the EPA's proposal to defer collecting critical greenhouse emissions data until 2014, 75 Fed. Reg. 81,350 (Dec. 27, 2010), is both unwarranted and contrary to EPA's nondiscretionary duty to "not later than June 26, 2009 [publish the final reporting rule], and begin implementation [ ] to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy of the United States." Consolidated Appropriations Act of 2008, Pub. L. No. 110-161, § 6, div. F, tit. II, 121 Stat. 1844, 2128 (2008); Consolidated Appropriations Act of 2009, Pub. L. No. 111-8, §5, div. E, tit. II, 123 Stat. 524, 729 (2009). The proposed deferral also raises serious questions as to EPA's compliance with section 114 of the Clean Air Act, 42 U.S.C. § 7414, and with the agency's own regulations.

EPA need not and should not take this course. The deferral would seriously degrade the reporting system's data quality, deny the public its legal right to this vital emission data, and disrupt other reporting programs. It would do so in response to vague industry concerns which EPA itself acknowledges were "only general statements that inputs to emission equations can be sensitive and should be held confidential." 75 Fed. Reg. 81,366, 81,368 (Dec. 27, 2010) (call for information). EPA is required to conduct an extensive investigation before it waives public access to even a single data point, with industry bearing the burden for showing competitive harms, *see* 40 C.F.R. pt. 2 ("Confidentiality of Business Information"), but here the agency proposes to block access to thousands of data elements in response to nothing more than these unsubstantiated claims. Thus, though EPA purports to need a three-year deferral in order to evaluate these concerns, in practice, the proposed deferral arbitrarily departs from EPA practice and cancels enforcement of large sections of the reporting rule for years without further investigation.

Response: For the response to the comment regarding Congress's instructions to EPA, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

EPA does not agree that the proposed deferral raises serious questions as to EPA's compliance with section 114 of the Clean Air Act, 42 U.S.C. § 7414, and with the agency's own regulations. Please see the responses to EPA-HQ-OAR-2010-0929-0029.1, excerpts 6 and 10. EPA regrets any inconvenience to other reporting programs that this action may cause but notes that the deferred reporting of inputs to emission equations under EPA's Greenhouse Gas Reporting Program does not affect the ability of States to require facilities to report these data elements.

EPA disagrees with the commenter that the deferral is based on unsubstantiated claims. Please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 10

Comment: Even if some portion of the deferred data elements were *not* 'emission data,' under Section 114, EPA's actions would still not be legally supportable. EPA is refusing to collect and disclose critical emissions information from thousands of sources. Its refusal to disclose the data (or, indeed, even to collect it) is contrary to its own rules.

EPA's general rules covering CBI claims, at 40 C.F.R. Pt. 2, require a detailed, case-by-case, evaluation of each confidentiality claim before EPA may withhold data from the public. In particular, each emitter must assert a confidentiality claim showing, among other requirements, that it has taken "reasonable measures to protect" the information it claims as CBI, and that the data "is likely to cause substantial harm to the business's competitive position." 40 C.F.R § 2.208. EPA's evaluation of these claims is fact-intensive and requires several layers of agency review and public comment. *See* 40 C.F.R. §§ 2.205-2.206.

No such process occurred before EPA issued the proposed deferrals, which effectively prevents public disclosure of the hundreds of data elements they cover. On the contrary, EPA characterized industry statements requesting protection as "general," and criticized them for usually failing to provide a "supporting rationale regarding how the public availability of individual data elements would cause harm to their competitive positions." 75 Fed. Reg. at 81,368. For numerous types of data, EPA requested public comment but *received no complaints at all* from industry suggesting that it had *any concerns* that the release of these data would cause competitive harm.

But while the burden of proof for every CBI claim is on the claimant, EPA reacted to the failure of proof of these generalized claims by proposing to grant them. EPA proposes to spend three years considering "which, if any, inputs to equations could result in the harmful consequences described by the [industry] commenters if made available to the public." 75 Fed. Reg. at 81,355. In essence, it proposes to withhold information from the public *before* determining whether disclosure will cause any harm, *without any evidence suggesting that these data might actually cause competitive consequences*. Indeed, as best as we have been able to determine, EPA has not even received *general* allegations of harm on many – and perhaps the majority -- of the data

elements it proposes to defer. Instead, EPA has proposed deferring *all* "inputs to emission equations for direct emitters," 75 Fed. Reg. at 81,354, regardless whether it has received any complaints, or has any reasonable basis for believing that such complaints may be substantiated.

The process EPA suggests is the opposite of the one set out in its regulations which place the default on public disclosure, until industry proves otherwise. Instead, EPA may only withhold non-CBI data if a reporter has "satisfactorily shown" that harm will occur. 40 C.F.R. § 2.208. Even assuming EPA could take this responsibility for industry, it cannot erase the evidentiary burden that must be met to satisfy the existing regulations, which legally bind EPA. Because, as EPA itself admits, this showing currently before it is either unsatisfactory or absent in essentially all cases, it must not withhold this information. If EPA finalizes its blanket deferral, it will have acted arbitrarily, capriciously, and contrary to law.

Response: We disagree that EPA is refusing to collect and disclose emissions information. Today's action defers the deadline for reporting data elements categorized as inputs to emission equations but does not alter the requirement to report these inputs. As we said in the December 27, 2010 deferral proposal, "If additional approaches to calculate or verify emissions are viable, EPA may determine that it is not necessary to collect certain highly sensitive inputs and propose to amend Part 98 accordingly . . . . Should EPA decide that it is necessary to amend Part 98 as a result of this evaluation, we would promulgate any such amendment through a notice and comment process." 75 FR 81350, 81355. Similarly, we disagree that EPA reacted to industry claims and requests by proposing to grant them. The December 27, 2010 deferral proposal proposed to defer the deadline for reporting inputs to provide EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and to take further action if necessary; it did not propose to eliminate the requirement to report inputs.

EPA disagrees that the deferral subverts the spirit of the reporting rule mandate and that it is contrary to the plain text of Section 114 of the Clean Air Act. In enacting Title II of the 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161) to require that EPA promulgate a rule for greenhouse gas emissions reporting, Congress left the Agency discretion in determining the specific data to be reported, timing of data reporting, and the methods of data calculation and verification. Further, EPA has broad authority to collect information under section 114 of the CAA. While section 114 provides that "[a]ny records, reports or information" EPA obtains "shall be available to the public." 42 U.S.C. § 7414(c), it exempts from such disclosure information entitled to confidential protection. EPA believes that the Greenhouse Gas Reporting Program should employ well-balanced consideration of both mandates under section 114, i.e., both public availability of information and protection of information entitled to confidential treatment.

We disagree that, by finalizing the proposed deferral, EPA is acting arbitrarily, capriciously, and contrary to law. As noted above, this final action extends the reporting deadline for inputs to equations to provide EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and whether in those cases emissions can be calculated or verified using additional methodologies, consistent with the transparency and accuracy goals of Part 98. During the deferral period,

reporters must continue to report GHG emission levels and all other data required under Part 98, including data essential to verification but not identified as inputs to emission equations.

We disagree that the deferral violates EPA's CBI regulations. Today's action does not establish the confidentiality status of any inputs to emission equations but simply extends their reporting deadline.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 40

Comment: The rule sweeps far more broadly than could possibly be necessary. EPA appears to have proposed to defer every data element in the rule which involves an emission equation for direct emitters, whether or not it received any specific evidence that these data elements implicated any CBI concerns. This over-broad approach departs entirely from EPA's usual element-by-element reviews under 40 C.F.R. Pt. 2, and cannot be sustained in the final rule. Even assuming that EPA could ever defer collecting and disclosing emission data, which it cannot, unless EPA receives specific evidence that a given (non-emission data) data point raises such compelling CBI problems that EPA is likely to find it to be CBI, it may not defer that element of the rule. Indeed, the rule is so over-broad that it purports to defer some data elements without even specifying what they are. The proposal notes that some elements of Subparts D and RR may be deferred, *see* 75 Fed. Reg. at 81,353 (Table 2), but does not list any data elements in these subparts in Table A-6, which specifies deferred data elements, *see id.* at 81,357. Needless to say, EPA may not finalize deferrals of data elements when the public has had no opportunity to comment upon them. Although EPA should simply abandon deferrals in these subparts, if it does opt to defer data elements outside the proposal, it must first issue a draft rule for notice and comment. This slap-dash approach to the deferral is troublingly inconsistent with EPA's congressional mandate to develop and operate the reporting system pursuant to the Clean Air Act, including its public disclosure requirement, without delay. EPA surely cannot justify acting to shut down public access to critical greenhouse gas emission data without any evidence.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

We disagree that the proposal failed to adequately identify data elements proposed for deferral. We acknowledge that subpart RR was erroneously mentioned in the preamble to the deferral proposal, but note that no subpart RR data element was included in Table A-6 of the proposed regulatory text. We disagree that subpart D was incorrectly mentioned in the proposal preamble. The subpart D reporting requirements proposed for deferral were included in proposed Table A-6 as 40 CFR 98.36(d) (i.e., the Subpart C citation referenced in the subpart D reporting requirements (see 40 CFR 98.46). As discussed in Section III of the preamble to the final rule, EPA has made only minor changes from proposal to the final list of deferred data elements.

Commenter Name: Curtis Ravenel, Director of Sustainability[1]
Commenter Affiliation: Bloomberg LP
Document Control Number: EPA-HQ-OAR-2010-0929-0020.1
Comment Excerpt Number: 6

Comment: Bloomberg wishes to emphasize that GHG emissions information is an important indicator that is widely-used by business and financial analysts. Consequently, Bloomberg considers it unfortunate that EPA feels that it needs to postpone full-scale GHG reporting by three years. We question whether the long postponement is legally justified on this record by EPA's broad general statements that it needs additional time to consider the issues raised.

Bloomberg's primary interest is in making sure that sufficient data is made available so that analysts and the public can verify the accuracy of the GHG information that is made available. We regret that EPA has tentatively concluded that it is necessary to pull back from requiring specific information that would enable us and others to verify the accuracy of the information being reported. We do understand, however, the concerns expressed by some in industry about protecting legitimate trade secrets and process information that underlie some of these changes.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1. For the response to the comment on verification, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 5

Comment: Congress gave EPA a clear mandate to complete the reporting system, and to begin implementation, by 2009. Delaying data collection for thousands of emitters and data elements until 2014 is not consistent with Congress's mandate, which was intended to benefit the public and policymakers confronting global warming.

Faced with the growing climate crisis, Congress since 2008 has pressed EPA to complete its work on the reporting system. The Consolidated Appropriations Act of 2008 directed EPA to "develop and publish a draft rule not later than 9 months after the date of enactment of this Act, and a final rule not later than 18 months after the date of enactment of this Act, to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy of the United States." 121 Stat. at 2128; *see also* House Appropriations Committee Print, Consolidated Appropriations Act, at 1197, 1254-55 (explanatory statement). EPA did not act quickly, and in the Consolidated Appropriations Act of 2009, Congress again set a "June 26,

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[1] Comment also included in EPA-HQ-OAR-2010-0964-0022.1.

2009, deadline to promulgate the final rule, as required by law." House Appropriations Committee Print, Consolidated Appropriations Act of 2009, 1144; *see also* 123Stat. at 729. It explained that it had "directed EPA" to use its Clean Air Act authority to require greenhouse gas reporting "in all sectors of the economy" and stated that the "Committees are dismayed that the Agency" had missed its deadline to promulgate the draft rule. Appropriations Act of 2009 at 1144. EPA, too, has repeatedly acknowledged the need to put this rule in place, to prevent further delay in data collection and reporting. [Footnote: In a hearing on the 2009 Act, then-Administrator Johnson acknowledged that EPA had a "mandate" to meet the "congressionally directed schedule." *Dep't of the Interior, Env't, and Related Agencies Appropriations for Fiscal Year 2009: Hearing before a Subcomm. Of the Comm. On Appropr.*, 110 Cong., Sen. Hrg. 110-648, 38-39 (Mar. 4, 2008), attached as Ex 4. Then, when EPA still had not completed the rule in 2009, Administrator Jackson wrote to Congress that she "shared [its] sense of urgency in issuing the proposed and final rule," indicating that EPA was "making every effort" to begin data collection in 2010. Letter from Lisa P. Jackson to Reps. Jay Inslee, Sens. Dianne Feinstein, et al. (Mar. 6, 2009), attached as Ex. 5.]

This sense of urgency is appropriate. As Representatives Baldwin, Waxman, Inslee, and Holt explained in a letter to EPA, "accurate measurements, consistent reporting, and a publicly available database of our emissions levels" are essential to any effort to control climate change. Letter from Reps. Inslee et al. to Lisa Jackson (Feb. 17, 2009). The United States "currently lacks the complete, accurate, consistent, and reliable greenhouse gas data that is necessary for the long-term success of our climate policy."

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0022.1, excerpt 2.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 7

Comment: These statutory and regulatory mandates combine to bind EPA in several regards. First, EPA was not simply mandated to establish, for the public, Congress, and policymakers generally, a greenhouse gas reporting system "in all sectors" of the U.S. economy in name only, but actually to implement that system by 2009, and then to require data collection and public reporting to avoid missing additional years' worth of data. EPA must ensure that this system produces sufficiently robust data to support the development and enforcement of greenhouse gas control policies by Congress, the states, and the public. Second the public is entitled by law to the data the rule generates, including all emission data. The system, in sum, must be speedily implemented, well built, and transparent.

The proposed deferral violates these basic requirements and is contrary to the intent of the 2008 and 2009 Appropriations Acts and the plain language of section 114. EPA is proposing to delay data collection to 2014 in 34 industry sectors, including major greenhouse gas emitters such as

stationary boilers, petroleum refining, cement production, iron and steel production, and oil and gas systems. 75 Fed. Reg. at 81,353 (Table 2).

Response: For the response to this comment, please see the responses to EPA-HQ-OAR-2010-0929-0022.1, excerpt 2, and EPA-HQ-OAR-2010-0929-0029.1, excerpt 6.

Commenter Name: David Thornton, Minnesota, Co-Chair and James Hodina, Cedar Rapids, Iowa, Co-Chair
Commenter Affiliation: National Association of Clean Air Agencies (NACAA)
Document Control Number: EPA-HQ-OAR-2010-0929-0032.1
Comment Excerpt Number: 4

Comment: NACAA is also concerned with the effects that the Proposed GHG Reporting Deferral would have on the integrity and goals of the GHGRP. Deferring the reporting of inputs to emissions equations would deprive the GHGRP of the full set of data necessary for implementing the stated goal of the program to obtain quality data that can be used to inform future policies and regulations. As EPA noted when it established the GHGRP, facility-specific information is necessary in order to better understand factors influencing GHG emission rates (e.g. fuel use efficiency), catalogue actions undertaken by facilities to reduce emissions, and compare facility information. Finally, the Proposed GHG Reporting Deferral would impede data verification efforts by making information critical to the verification process unavailable for three years. While EPA notes in the proposal that it intends to place additional emphasis on direct follow-up with sources during the deferral period, the agency does not provide details. A number of questions, most pressing whether or not EPA has sufficient resources to directly follow up with the large number of facilities that will not be reporting the necessary data elements for electronic verification, remain unanswered. This is particularly troubling given that the GHGRP does not mandate third-party verification of data, instead requiring self-certification with EPA verification. EPA, as well as the public, need to have specific information regarding data elements that are inputs to emissions equations if this system is to continue, as failure to provide data elements necessary for verification undermines the integrity of the GHGRP. If EPA does defer data elements necessary for verification, the agency should require third-party verification through the deferral period. NACAA urges EPA to retract its proposal to defer reporting of data elements that are inputs to emissions equations for three years. The association stresses that emissions data, including inputs to emissions equations, must be made publicly available as required by the Clean Air Act; specific data elements should only be deferred or withheld if a source has demonstrated that they are not emissions data, not already publicly available, and properly qualify as CBI. However, if EPA does finalize a reporting deferral for data elements that are inputs to emissions equations, the deferral period should be no longer than one year and must not include information that is already publicly available.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1. For the response to the comment on verification, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.

Commenter Name: Mandy Warner
Commenter Affiliation: Environmental Defense Fund
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 27

Comment: EDF notes that in another action, the Agency has proposed to defer reporting of "inputs to emission equations" for three years. We respectfully request that EPA decline to take this action so that policymakers and the public at large have access to high-quality, transparent greenhouse gas emissions data for "all sectors of the economy," as required under the Clean Air Act and as Congress twice commanded.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the responses to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1 and EPA-HQ-OAR-2010-0929-0022.1, excerpt 2.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 41

Comment: We expect the agency to use the data adduced in its call for information to defer only those data elements which raise genuine CBI problems, and then to constrain the deferrals themselves to the minimum time necessary for reporters in each sector to switch to direct measurement. Due to the lack of supporting information in the record for the current proposed over-broad deferral, should EPA move forward with deferral of specific data elements in the current Table A-6, it must re-propose such deferrals accompanied by information supporting the deferrals and subject the proposal to notice and comment.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

2.0 COMMENTS ON WHETHER DATA ELEMENTS ARE INPUTS

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0929-0012.1
Comment Excerpt Number: 7

Comment: There are multiple data elements in subpart Y which were designated by EPA as "inputs to emission equations," yet they were omitted from the proposed deferral. A list of such data elements is provided below [see table in EPA-HQ-OAR-2010-0929-0012.1] . ACC believes

that the deferral should include all data elements that are classified as "inputs to emission equations" so that EPA can fully evaluate whether these data elements should be protected as CBI. Some examples include §98.256(e)(6) which covers flare gas characteristics, and §98.256(f)(8) which covers inlet air characteristics.

Response: In the July 7, 2010 CBI proposal, EPA defined the data elements in the Inputs to Emission Equations category as data elements that are ''inputs to equations specified in Part 98 for calculating emissions to be reported by direct emitters . . . and are used by the reporting direct emitting sources to calculate their annual GHG emission under Part 98'' (75 FR 39094 July 7, 2010). However, in preparing the interim final and proposed deferral notices, EPA noted that the July 2010 CBI proposals inadvertently included in the Inputs to Equations category 69 data elements that are information related to emissions calculations but are not the actual inputs specified in any Part 98 emission calculation. For example, a subpart may require that reporters complete a particular calculation for each unit across a facility. In this circumstance, a reporter would gather necessary data and complete the calculation for each unit. Although Part 98 specifies that reporters must complete the calculation for each unit, the actual number of units would not be an input to the emission equation based on our description of the Inputs to Equations category.

Some data elements were moved out of the Inputs to Equations category in the interim final and proposed deferral notices and ultimately in the May 26, 2011 Final CBI rule (76 FR 30782) because after further consideration, we determined the frequency of measurement that is prescribed in the ''Calculating GHG emissions'' sections differs from that of the data element that is reported. For example, in Equation Y–1a in 98.253(b)(1)(ii)(a), ''CCp'', the average carbon content of the flare gas combusted,'' is required to be monitored either daily or weekly. The daily or weekly carbon content of the flare gas combusted, however, is not required to be reported. Instead, pursuant to 98.256(e)(6), the ''annual average carbon content of the flare gas'' is required to be reported. Therefore, the carbon content is required to be measured and used to calculate emissions at a higher frequency than that which is required to be reported. Similarly, refineries use the measured daily values of the inlet air flow rate to calculate emissions rather than the annual average value of the inlet air flow rate they report under 40 CFR 98.256(f)(8). As a result, the reporting element is an average of the actual values that are used to calculate the emissions, and is not actually used to calculate emissions. In cases such as these, we have determined that the reporting elements are not inputs to equations.

For the list of the 69 data elements that were reassigned to other data categories, please see Appendix C of the memorandum "Final Data Category Assignments and Confidentiality Determinations for Part 98 Reporting Elements" (available in Docket EPA–HQ–OAR–2009–0924 and on EPA's Web site (see *http://www.epa.gov/climatechange/emissions/CBI.html*). For the list of inputs and the reporting deadline for each input, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[2]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 4

Comment: Finally, in its interim final rule, EPA specified the data elements that have a deferred reporting date in "Table A-6," which was added to 40 C.F.R. part 98. The proposed rule "proposes to add the remaining data elements that are inputs to emission equations" to this table. 75 Fed. Reg. at 81354. Despite EPA's intention, however, the table does not include all of the "inputs to emission equations" that must be reported under the GHGRP. [Footnote: We refer the Agency to API's February 2, 2011 comments for a further explanation of this discrepancy. *See* Attachment 4.[3]] In its final rule, we urge EPA to reconcile Table A-6 with its July 2010 proposed rule, and make clear that *all* inputs to emissions equations are included in the deferral of the reporting deadline to March 31, 2014. As explained *infra* at Section II, all "inputs to emission equations" data elements are entitled to confidential treatment, and deferral of the reporting deadline for all these elements is warranted.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Karin Ritter
Commenter Affiliation: American Petroleum Institute
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 10

Comment: API is concerned that EPA's compilation and proposed reporting deferral of the data elements that are "inputs to emission equations" is not as comprehensive as EPA may have intended. Multiple data elements that were originally categorized by EPA as "inputs to emission equations" in its July 7, 2010 proposed CBI rulemaking are not included in either the interim final or the proposed deferral actions. Again, API provided detailed information regarding these omissions in comments we submitted yesterday. And by these omissions, EPA might be contributing to an inadvertent disclosure of confidential information when reporters comply with the upcoming March 31st, 2011 reporting deadline for calendar year 2010 data. API urges that consistent with the Agency's stated intent, all data elements in the "inputs to emission equations" category be included in EPA's final rule on the deferral.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

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[2] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 andEPA-HQ-OAR-2010-0964-0023.1.
[3] Attachment 4 was submitted as EPA-HQ-OAR-2010-0929-0007.1, which has been parsed separately.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 31

Comment: The CBI implications of reporting under the material balance method described in 98.123(b) are particularly onerous. For this rule, each process would be required to report complete information on the balanced chemical equation (98.126(b)(2)). While EPA originally proposed to require only the mass of each reactant added under 98.126(b)(3) and (6) (and not the formula), there would be little difficulty in determining how much of each reactant was added to and removed from the process. With the addition of the mass of product produced (98.126(b)(7)), mass of product emitted 98.126(b)(4), and mass of each byproduct emitted 98.126(b)(5) a detailed understanding of the process is obtained. For some facilities, the basic chemical equations for a process may have been placed in the public sector. However for other facilities, this type of detailed information would provide competitors information on specific production quantities and process yields.

Response: We thank the commenter for their input. 40 CFR 98.126(b)(2), and (6) (excluding the chemical formula) are considered to be inputs to emission equations and are included in both the December 27, 2011 proposal and in this final deferral notice. Today's final rule defers the reporting deadline for these inputs until 2015, which will provide EPA with the additional time needed to fully evaluate whether and the extent to which potential competitive harm may result from public availability of these data elements. 40 CFR 98.126(b)(3), (b)(4), (b)(5), (b)(7), and the chemical formula reported under 40 CFR 98.126(b)(6), were not included in the proposal to defer data elements because these data elements are not used as inputs to emission equations. For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 20

Comment: We note with concern that §98.316(b)(8) has not even been identified by EPA as one of the emissions inputs for which reporting would be delayed in its December 27 notices of Interim Final Regulation and Proposed Regulation Deferring the Reporting Date for Certain Data Elements despite our earlier comments on the business sensitivity of the reporting element. We also noted specific reporting elements identified by EPA as input to emissions that are considered by DuPont to be CBI, but not included in EPA's notices of Interim Final Regulation and Proposed Regulation Deferring the Reporting Date for Certain Data Elements [*Op. cit.,* 75 *Federal Register* 81338-81347 and 75 *Federal Register* 81350-81363] despite our earlier comments on the business sensitivity of the reporting element.

Response: The monthly production of titanium dioxide for each production process (§98.316(b)(8)) was not included in the proposal to defer data elements because this data element is not used as an input to the emission equations. It was included in the Final CBI rule (76 FR 30782). For further information on how EPA defines inputs and for a response to the comment about data elements originally identified by EPA as inputs to emission equations, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0929-0012.1
Comment Excerpt Number: 4

Comment: Section 98.246(a)(4) is generally deferred under the proposal, with the exception of "temperature." The temperature of the processes should be protected under this proposal as well.

Response: The temperature reported under 40 CFR 98.246(a)(4) is not used as an input to emission equations and is therefore not included in this rulemaking. It was included in the Final CBI rule (76 FR 30782). For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0929-0012.1
Comment Excerpt Number: 5

Comment: Section 98.246(a)(5) should be deferred. It requires the reporting of the annual quantity of petrochemicals produced from each process unit.

Response: 40 CFR 98.246(a)(5) is not used as an input to emission equations and is therefore not included in this rulemaking. It was included in the Final CBI rule (76 FR 30782). For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Comment Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0929-0012.1
Comment Excerpt Number: 6

Comment: Sections 98.246(c)(4 and 5) should be deferred. They require the reporting of the annual quantity of feedstock as well as the annual quantity of ethylene produced from each process unit.

Response: 40 CFR 98.246(c)(4 and 5) are not used as inputs to emission equations and are therefore not included in this rulemaking. For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Karin Ritter, Regulatory and Scientific Affairs[4]
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0929-0007.1
Comment Excerpt Number: 1

Comment: EPA's compilation (and potential deferral) of the "inputs to emission equations" are not as comprehensive as EPA may have intended. Multiple data elements that were originally categorized by EPA as "inputs to emission equations" in its July 7, 2010 proposed CBI rulemaking are not included in either the interim final or the proposed deferral actions. Table I consolidates all the direct emitters' data elements for subpart A, C, P, Y and TT. These distinctions appear only to be arbitrary, and EPA should treat all input to emission equations elements in the same manner. By there [sic] omissions EPA might be contributing to an inadvertent and arbitrary disclosure of confidential information when reporters comply with the March 31, 2011 reporting deadline for calendar year 2010 data. API urges that, consistent with the Agency's stated intent, all data elements in the "inputs to emission equations" category be included in EPA's final rule on the deferral. [The commenter supports deferring the following data element citations.]

Subpart A:

Data Element -Total number of hours in the year that a missing data procedure was used.

Reporting Section - 98.3c8

Data Element -Reason for the extension request

Reporting Section - 98.3d2iiC

Data Element -Planned installation date

Reporting Section - 98.3d2iiF

Subpart C:

Reporting Section - 98.36b6, 98.36b7, 98.36c1viii, 98.36c1ix, 98.36c2vi, 98.36c2vii

Data Element - Each type of Fuel combusted in the units during the year

Reporting Section - 98.36c2iv

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[4] Comment also included in EPA-HQ-OAR-2010-0964-0030.1.

Data Element - Fuels combusted in the units during the reporting year

Reporting Section - 98.36c3iv

Data Element - The methodology start date

Reporting Section - 98.36c3viii, 98.36d1vi, 98.36d2iiC, 98.36d2iiiC

Data Element - The methodology end date

Reporting Section - 98.36c3ix, 98.36d1vii, 98.36d2iiD, 98.36d2iiiD

Data Element - Acid Rain Program end date

Reporting Section - 98.36d1viii

Data Element - Annual CO2 emission from combution of biomass

Reporting Section - 98.36d1ix

Data Element - Each type of fuel combusted in the unit during the reporting year

Reporting Section - 98.36d2iiA

Data Element - Annual CO2mass emissions from the combustion of biomass (CO2e)

Reporting Section - 98.36d2iil

Subpart P:

Data Element Quarterly quantity of CO2 collected and transferred off site (subpart PP)

Reporting Section 98.166(c)

Subpart Y:

Data Element An indication of whether daily or weekly measurement periods are used

Reporting Section 98.256e6, 98.256e7, 98.256e8

Data Element Annual volume of flare gas combusted

Reporting Section 98.256e6, 98.256e7, 98.256e8

Data Element Annual average molecular weight of the flare gas

Reporting Section 98.256e6

Data Element Annual average carbon content of the flare gas

Reporting Section 98.256e6

Data Element Annual average CO2 concentration

Reporting Section 98.256e7

Data Element The number of carbon containing compounds other than CO2 in the flare gas stream

Reporting Section 98.256e7

Data Element The annual average concentration of the compound

Reporting Section 98.256e7i

Data Element Annual average higher heating value of the flare gas

Reporting Section 98.256e8

Data Element An indication of whether the annual volume of flare gas combusted and the annual average higher heating value of the flare gas were determined using standard condition of 68F and 14.7 psia or 60F and 14.7 psia

Reporting Section 98.256e8

Data Element Number of SSM events exceeding 500,000 scf/day

Reporting Section 98.256e9

Data Element Description of the method used to calculate the CO2 emissions

Reporting Section 98.256f5

Data Element Description of the method used to calculate the CO2 emissions

Reporting Section 98.256f5

Data Element Tier 4 calculation Methodology reporting requirements specified under §98.36(e)(2)(vi)1

Reporting Section 98.256f6

Data Element Annual CO2 emissions associated with sources other than those from coke burn off

Reporting Section 98.256f6

Data Element Annual average exhaust gas flow rate

Reporting Section 98.256f7

Data Element %CO2

Reporting Section 98.256f7, 98.256f8

Data Element %CO

Reporting Section 98.256f7, 98.256f8

Data Element Annual average flow rate of inlet air

Reporting Section 98.256f8

Data Element Annual average flow rate of oxygen-enriched air

Reporting Section 98.256f8

Data Element %O2

Reporting Section 98.256f8

Data Element %Ooxy

Reporting Section 98.256f8

Data Element Annual average flow rate of inlet air

Reporting Section 98.256f9

Data Element Annual average flow rate of oxygen-enriched air

Reporting Section 98.256f9

Data Element %N2 oxy

Reporting Section 98.256f9

Data Element %N2 exhaust

Reporting Section 98.256f9

Data Element Number of regeneration cycles or measurement periods during the reporting year

Reporting Section 98.256f13

Data Element Maximum rated throughput

Reporting Section 98.256g3

Data Element Applicable equation input parameters specified in paragraphs (f)(7) through (f)(13)

Reporting Section 98.256g5

Data Element A description of the type of sulfur recovery plant

Reporting Section 98.256h2

Data Element An indication of the method used to calculate CO2 annual emissions for the sulfur recovery plant

Reporting Section 98.256h2

Data Element Inidcatewhether the recycled flow rate and carbon content are included in the measured data

Reporting Section 98.256h5

Data Element Indicate whether a correction for CO2 emissions in the tail gas was used in Equation Y-12

Reporting Section 98.256h5

Data Element Tier 4 Calculation Methodology reporting requirements specified under 98.36e2vi1

Reporting Section 98.256h6

Data Element Annual CO2 emissions associated with fuel combustion reporting requirement under subpart C1

Reporting Section 98.256h6

Data Element Maximum rated throughput of the unit

Reporting Section 98.256i2

Data Element An indication of whether coke dust is recycled to the unit

Reporting Section 98.256i5

Data Element Tier 4 Calculation Methodology reporting requirements specified under 98.36e2vi1

Reporting Section 98.256i6

Data Element Indicate whether you use a measured value, a unit specific emission factor, or a default emission factor for N2O emissions

Reporting Section 98.256i8

Data Element Basis for the CO2 emission factor

Reporting Section 98.256j8

Data Element Basis for the carbon emission factor

Reporting Section 98.256j8

Data Element Basis for the CH4 emission factor

Reporting Section 98.256j9

Data Element Total number of delayed coking units

Reporting Section 98.256k3

Data Element Total number of delayed coking drums

Reporting Section 98.256k3

Data Element Typical drum outage of coke drum or vessel

Reporting Section 98.256k3

Data Element Number of coking drums in the set

Reporting Section 98.256k4

Data Element Annual volumetric flow discharged to the atmosphere

Reporting Section 98.256l5

Data Element An indication of the measurement or estimation method

Reporting Section 98.256l5

Data Element Annual average mole fraction of each GHG above the concentration threshold

Reporting Section 98.256l5

Data Element Typical drum outage of coke drum or vessel

Reporting Section 98.256k3

Data Element Number of venting events

Reporting Section 98.256l5

Data Element Cumulative venting time

Reporting Section 98.256l5

Data Element An indication of whether the uncontrolled blowdown emission are reported under 98.253(k) or 98.253(j) or a statement that the facility does not have any uncontrolled blowdown systems

Reporting Section 98.256m1

Data Element For uncontrolled blowdown systems reporting under 98.253j the relevant information required under paragraph I5 of this section

Reporting Section 98.256m4

Data Element The quantity of unstabilized crude oil received during the calendar year

Reporting Section 98.256o6

Data Element The average pressure differential

Reporting Section 98.256o6

Data Element The mole fraction of CH4 in vent gas from the unstabilized crude oil storage tank

Reporting Section 98.256o6

Data Element Basis for the mole fraction of CH4 from the unstabilized crude oil storage tank

Reporting Section 98.256o6

Data Element The tank-specific methane composition data

Reporting Section 98.256o7

Data Element The gas generation rate data

Reporting Section 98.256o7

Data Element Types of materials loaded than have an equilibrium vapor-phase concentration of CH4 of 0.5 volume percent or greater

Reporting Section 98.256p2

Data Element Type of vessels in which material that has an equilibrium vapor-phase concentration of CH4 of 0.5 volume percent or greater is loaded

Reporting Section 98.256p2

Subpart TT:

Data Element The year the landfill first started accepting waste for disposal

Reporting Section 98.466a2

Data Element Number of waste streams (including "other industrial solid waste (not otherwise listed)") for which Equation TT-1 is used to calculate modeled CH4 generation.

Reporting Section 98.466b1

Data Element Surface area at the start of reporting year for the sections that contain waste

Reporting Section 98.466e2

Response: EPA agrees that six of the data elements cited by the commenter are used as inputs to emission equations. As discussed in Section II of the preamble to the final deferral rule, EPA has added these six data elements to the list of inputs to emission equations deferred in this action. See 40 CFR 98, subpart A, tables A-6 and A-7. These data elements are:

- Subpart Y: Quantity of unstabilized crude oil received during the calendar year (40 CFR 98.256(o)(6)).
- Subpart Y: Average pressure differential (40 CFR 98.256(o)(6)).
- Subpart Y: Mole fraction of methane (CH4) in vent gas from the unstabilized crude oil storage tank (40 CFR 98.256(o)(6)).
- Subpart Y: Tank-specific methane composition data (40 CFR 98.256(o)(7)).
- Subpart Y: Gas generation rate data (40 CFR 98.256(o)(7)).
- Subpart TT: Surface area (in square meters) at the start of the reporting year for the landfill sections that contain waste and that are associated with the selected cover type (for facilities using a landfill gas collection system)(40 CFR 98.466(e)(2)).

None of the other data elements identified by the commenter are used as inputs to emission equations. Therefore, the other data elements identified by the commenter are not included in this rulemaking. For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 45

Comment: For subpart Y, the deferral of data elements that were categorized as inputs to emission equations appears to be somewhat random and incomplete. For several data elements under Subpart Y (e.g., §98.256(e)(6)), EPA only deferred the molar volume conversion factor (MVC), which is a constant, and neglected to defer the more critical unit specific data elements

that EPA had classified as inputs to emission equations. For flares, data elements associated with some estimation methodologies were deferred, while the same data elements associated with other estimation methodologies were not deferred, even though all were categorized as inputs to emission equations. These inconsistencies and API member's concerns about the confidential nature of specific data elements are indicated in the table below.

Response: EPA thanks the commenter for their input. However, except for molar volume conversion factor, the data elements identified in this comment are not used as inputs to emission equations. For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship, DuPont Safety, Health & Environment and Sustainable Growth Center
Commenter Affiliation: The Dupont Company
Document Control Number: EPA-HQ-OAR-2010-0929-0026.1
Comment Excerpt Number: 7

Comment: Subpart EE – Titanium Dioxide Production

§§98.316(b)(8) and (b)(14) should both be held confidential at this point in time. These elements were also omitted from the Interim Final rule. We noted our concern with these reporting elements in our September 6 comments. For §98.316(b)(8), monthly production, it seems probable that the omission was an oversight on the part of the Agency because a similar reporting requirement is indicated as delayed for Subpart CC (Soda Ash): §98.296(b)(6) – Monthly Production of Soda Ash. We provided additional explanation of our concern with public disclosure of information reported §98.316(b)(14) in our response to the Call for Information.

Response: 40 CFR 98.316(b)(8) and (b)(14) are not used as inputs to emission equations and are therefore not included in this rulemaking. They were included in the Final CBI rule (76 FR 30782). For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0929-0012.1
Comment Excerpt Number: 8

Comment: Sections 98.316(b)(8) and (b)(14) should both be treated as CBI at this point in time. For §98.316(b)(8), monthly production, it seems probable that the omission was an oversight on the part of the Agency because a similar reporting requirement is indicated as delayed for Subpart CC (Soda Ash): §98.296(b)(6) - Monthly Production of Soda Ash.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0026.1, excerpt 7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0929-0012.1
Comment Excerpt Number: 2

Comment: Sections 98.226 (c-e) require the reporting of certain data relative to the production of nitric acid. Items (c) and (d) have had their reporting appropriately delayed as they are utilized in emission calculations. Item (e) (annual nitric acid production from the facility) is not delayed as it is not used in any emission calculations. In its [July 7, 2010 CBI] proposal EPA correctly indicated that "annual nitric acid production from the facility" is indeed CBI. Due to the similarities of items (c) and (d) to item (e), disclosure of this data would have the same impact. Disclosure of annual production volumes will allow competitors to better understand the activities and capabilities of other companies' operations.

Response: 40 CFR 98.226(e) is not used as an input to emission equations and is therefore not included in this rulemaking. It was included in the Final CBI rule (76 FR 30782). For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7. For further information on how EPA defines inputs, see the response to comment EPA-HQ-2010-0929-0012.1, excerpt 7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0929-0012.1
Comment Excerpt Number: 1

Comment: Table A-6 of the proposal appears to be inconsistent with last July's determinations for some of the material balance elements under §98.126(b). These citations changed between the re-proposed and final rules and it is unclear whether this was intentional or an oversight.

In July 2010, EPA determined that §§98.126(b)(2-10) were all "inputs to emission equations" and only the mass of material was exempt from reporting under §§98.126 (b)(3) and (6). In this proposed rule, Table A-6 is silent with regard to extending the reporting period for §§ 98.126(b)(3)-(7), with some of these reporting elements being identical to what was in the original re-proposed rule.

Response: We thank the commenter for their input. 40 CFR 98.126(b)(3), (b)(4), (b)(5), (b)(7), and the chemical formula reported under (b)(6) are not included in this notice because they are not used as inputs to emission equations. For further information on how EPA defines inputs, see the response to comment EPA-HQ-2010-0929-0012.1, excerpt 7.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.

Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 11

Comment: Any disclosure of Annual Production Capacity [§98.316(a)(4) and (b)(5)] and/or Monthly Production of Titanium Dioxide [§98.316(b)(8)]. This information provides competitive interests with direct intelligence relating to (1) the market supply and availability of TiO2, (2) our relative cost of manufacture based on the calculated utilization of capacity rating, and (3) product pricing flexibility or inflexibility based on (1) and (2). This intelligence, should it be acquired, then could be used against us either in a small increment of business (*e.g.*, a single developing country) or a larger basis (*e.g.*, the entire Asia-Pacific region). We note with concern that §98.316(b)(8) has not even been identified by EPA as one of the emissions inputs for which reporting would be delayed in its December 27 notices of Interim Final Regulation and Proposed Regulation Deferring the Reporting Date for Certain Data Elements [Footnote: 75 *Federal Register* 81338-81347 and 75 *Federal Register* 81350-8136] despite our earlier comments on the business sensitivity of the reporting element [...] We believe the Number of Separate Chloride Process Lines Located at the Facility [§98.316(b)(14)] falls into the same category as Production and Capacity CBI noted above. From direct information regarding the number of separate Chloride Lines that may be located at our sites, and other information that may be available indicating production rates at any given site, a competitor can better approximate our production capability per line. We believe our capabilities in that regard differ from our competitors', and we would like to retain that difference as CBI and not actively disclose it. We note with concern that this item has not even been identified by EPA as one of the emissions inputs for which reporting would be delayed in its December 27 notices of Interim Final Regulation and Proposed Regulation Deferring the Reporting Date for Certain Data Elements [Footnote: *Ibid,* 75 *Federal Register* 81338-81347 and 75 *Federal Register* 81350-81363] despite our earlier comments on the business sensitivity of the reporting element.

Response: The annual production capacity of titanium dioxide (§98.316(a)(4) and (§98.316(b)(5)), monthly production of titanium dioxide for each production process (§98.316(b)(8)), and the number of separate chloride lines located at the facility (§98.316(b)(14)) were not included in the proposal to defer data elements because these data element are not used as an input to the emission equations. They were included in the Final CBI rule (76 FR 30782). For the list of deferred data elements and their reporting deadlines, please see 40 CFR part 98, subpart A, Tables A-6 and A-7. For further information on how EPA defines inputs, see the response to comment EPA-HQ-2010-0929-0012.1, excerpt 7.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 165

Comment: For Subpart Y, the following data elements are important for the estimation and verification of emissions and are thus equally as important as the calculated estimates. Therefore, they should be reported and their reporting should not be deferred. Doing so is not only inconsistent with basic technical principles of verifiability, it is clear that even industry

representatives recognize that consistency, transparency, and accuracy are important for GHG reporting.

- Number of regeneration cycles or measurement periods during the reporting year (98.256f13)
- Calculated annual CO2 emissions from sour gas sent off-site for sulfur recovery (98.256h3)
- Typical drum outage of coke drum or vessel (98.256k3)
- Annual volumetric flow discharged to the atmosphere, annual average mole fraction of each GHG above the concentration threshold, number of venting events, and cumulative venting time (98.256l5)

Response: None of the data elements identified by the commenter are used as inputs to emission equations and are therefore not included in this rulemaking. They were included in the Final CBI rule (76 FR 30782). For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 97

Comment:

- The reporting of the basis for the mole fraction of CH4 in the vent gas from the unstabilized crude oil storage tank (98.256o4v) should not be deferred, as this is not business sensitive information.
- The reporting of the basis for the mole fraction of CH4 in the vent gas from the unstabilized crude oil storage tank (98.256o6) should not be deferred, as this is not business sensitive information.

Response: 40 CFR 98.256(o)(4)(v) is used to calculate emissions and has therefore been deferred. 40 CFR 98.256(o)(6) is not used as inputs to emission equations, and is not included in this rulemaking. 40 CFR 98.256(o)(6) was included in the Final CBI rule (76 FR 30782). For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship, DuPont Safety, Health & Environment and Sustainable Growth Center
Commenter Affiliation: The Dupont Company
Document Control Number: EPA-HQ-OAR-2010-0929-0026.1
Comment Excerpt Number: 6

Comment: §§98.126(b)(2)-(10) were all "inputs to emission equations" and only the chemical formulae of reactants and by-products would be held confidential under §§98.126 (b)(3) and (6).

In this proposed rule, Table A-6 contains nothing with regard to extending the reporting period for §§98.126(b)(3)-(7).

Response: Several of the data elements mentioned in this comment (98.126(b)(3), (b)(4), (b)(5), (b)(7) and the data elements in (b)(6) other than mass of each fluorine-containing reactant fed into the process) are not used as inputs to the emission equations and are therefore not included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7. For further information on how EPA defines inputs, see the response to comment EPA-HQ-2010-0929-0012.1, excerpt 7.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 80

Comment: The reporting of the measured average hourly CO2 emission rate during the test (98.176f1) should not be deferred because this is direct emissions data.

Response: This data element is used as an input to an emission equation and has been included in the final deferral. For further information on how EPA defines inputs, see the response to comment EPA-HQ-2010-0929-0012.1, excerpt 7.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 145A

Comment: The gas generation rate data (98.256o7) is emissions data and its reporting should not be deferred.

Response: This data element is used as an input to an emission equation and has been included in the final deferral. For further information on how EPA defines inputs, see the response to comment EPA-HQ-2010-0929-0012.1, excerpt 7.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 140

Comment: The gas generation rate data (98.256o4vi) is emissions data and its reporting should not be deferred.

Response This data element is used as an input to an emission equation and has been included in the final deferral. For further information on how EPA defines inputs, see the response to comment EPA-HQ-2010-0929-0012.1, excerpt 7.

3.0 SUBPART A

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 9

Comment: Data element: Any facility operating data or process information used for the GHG emission calculations

This data element relates to information that must be reported in an abbreviated emissions report for 2010. API supports deferring this data element as the content of such information is very broad and would certainly include CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

4.0 SUBPART C

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 21

Comment: Ratio of the maximum rate heat input capacity to the design rated steam output capacity of the unit.

API supports deferring this data element and classifying this information as CBI. This information directly reveals unit utilization which is sensitive business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)

Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 5

Comment: TFI believes that all of the Subpart C inputs to emission equations set forth in Table 1 should be considered confidential business information by EPA and not available for public disclosure. While some of these individual data elements are not maintained as confidential by TFI's members in the normal course of their business, these data elements, when coupled with the Subpart G inputs to emission equations data elements, allow a competitor to create an accurate estimate of a facility's cost structure and operating efficiencies.

Response: EPA thanks the commenter for their input. Today's action does not establish the confidentiality status of any inputs to emission equations; rather, as described in the preamble to this action, it provides EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and to take further action if necessary. EPA defers assessing this comment to action on its ongoing process for evaluating inputs to equations, as described in the docket memorandum, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations."

Commenter Name: Burl Ackerman, Environmental Engineering Manager
Commenter Affiliation: J. R. Simplot Company
Document Control Number: EPA-HQ-OAR-2010-0929-0028.1
Comment Excerpt Number: 2

Comment: Simplot recommends the following inputs be considered confidential business information.

Subpart C- General Stationary Fuel Combustion Sources

§98.36(e)(2)(i)

§98.36(e)(2)(ii)(A)

§98.36(e)(2)(iv)(A)

§98.36(e)(2)(ix)(F)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)

Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 11

Comment: An estimate of the heat input from each type of fuel.

API supports deferring this information and classifying this element as CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 20

Comment: Total quantity (i.e., pounds) of steam produced from MSW or solid fuel combustion during the year.

API supports deferring this data element and classifying this information as CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 31

Comment: Carbon-based F-factor used in Equation C-13 of this subpart for each fossil fuel.

API supports deferring this data element and classifying this information as CBI, particularly where this factor is based on site-specific data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter
Commenter Affiliation: American Petroleum Institute
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 9

Comment: As API's prior comments demonstrate, the "inputs to emission equations" contain highly sensitive operational information that is CBI. For example, the quantity of fuel combusted in each combustion unit or group of combustion units is not information that is routinely reported in other greenhouse gas reporting programs and it's not currently available to the public. Under the California, for example, under the California mandatory greenhouse reporting rule, fuel quantity for each combustion device is recognized as CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert D. Bessette, President
Commenter Affiliation: Council of Industrial Boiler Owners (CIBO)
Document Control Number: EPA-HQ-OAR-2010-0964-0014.1
Comment Excerpt Number: 5

Comment: If certain information collected through the MRR, such as input data used in emission equations and the calculations themselves, is released to the public, CIBO members would suffer substantial harm to their competitive position. *See Leavitt*, 2006 WL 667327 at *5 (EPA defending CBI claims because the disclosure of information "would result in a competitive disadvantage to the respective companies"). Here, if the non-emission input and other data listed in Table 1 above were made publicly available, competitors would be privy to sensitive data of their direct competitors. The disclosure of this non-emission input data might also reveal a company's market strength and position or enable competitors to "infer production costs and pricing structures." *See* 75 Fed. Reg. 39,122-23 (July 7, 2010). More specifically, harms that could occur if these data become publicly available include:

- Providing competitors with knowledge regarding a competitor's source operating hours and other information, such as the ratio of maximum rate heat input capacity to the design rated steam output capacity can cause harm the competitive position of any companies required to report this information. Competitors could infer from this data whether certain equipment is out-dated and in need of replacement (thereby requiring their competitor to make costly capital investments or permitting modifications) or if their competitor lacks spare capacity to increase production. Similarly, disclosing information regarding the number of units sharing the same common stack or duct and combined maximum rated heat capacity could potentially provide competitors with information about a facility's spare process capacity and process design.
- Publicly disclosing energy consumption, the maximum rated heat input capacity, types of fuels used at a facility, or steam production may allow competitors to gain unfair intelligence regarding production capabilities, utilization, and production and energy costs. Knowledge of the capacity of process heaters, the type of fuel utilized in process heaters, composition of biomass combusted, molecular weights and carbon contents used in emissions calculations, and the high heat values for fuels combusted could enable competitors to calculate the production output and relative cost of manufacture at a particular facility.

- Identifying which facilities utilize non-traditional fuels could place the reporting entity at a competitive disadvantage because the composition and quantity of its nontraditional fuels are typically unknown amongst industry competitors. Therefore, these sources should not be forced to disclose confidential information such as the type of fuel utilized, composition of biomass combusted, molecular weights and carbon contents used in emissions calculations, and the high heat values for fuels combusted.

There is no time after which this data could be released that would avoid these potential competitive harms or antitrust concerns.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 2

Comment: ***Heat input*** - Knowing the heat input (e.g., total gross calorific value) from each type of fuel combusted in a lime kiln would help competitors determine the specific type and quality of fuel combusted. It could also help determine the source of the fuel (e.g., it is coal from the Powder River Basin, or it is a particular mix of biomass materials). Heat input values reveal information that is otherwise difficult to obtain. For example, while anyone can readily ascertain that a plant is combusting coal, knowledge of its heat value may help competitors determine where the fuel came from, and what the plant might have to pay for transportation costs. Significantly, the maximum heat input of a kiln also gives insights into the production capacity of the kiln and its production efficiency.

[The commenter supports deferring the following data element citations.]

40 CFR § 98.36(b)(9)(iii)

40 CFR § 98.36(c)(2)(ix)

High heat value – The average annual high heat value (the high or gross heat content of the fuel[40 CFR 98.6]) also gives competitors an insight into the potential production capacity of the kiln.

[The commenter supports deferring the following data element citations.]

40 CFR § 98.36(e)(2)(ii)(C)

40 CFR § 98.36(e)(2)(iv)(F)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Frederick T. Harnack, General Manager, Environmental Affairs
Commenter Affiliation: United States Steel Corporation (USS)
Document Control Number: EPA-HQ-OAR-2010-0964-0033.1
Comment Excerpt Number: 4

Comment: [The commenter supports deferring the following data element citations:] **40 CFR part 98, subpart C sections 98.36c1v, 98.36c2iv, 98.36d2iiA, 98.36d2iiiA, 98.36e2i, 98.36e2iiA, 98.36e2ivA** . "Each type of fuel combusted in the unit during the report year."

Energy is a significant cost component of our business. As such, our energy consumption and fuel choice is actively managed by our company to help us balance certain regulatory obligations, control costs and remain competitive. The fuel profiles of our boilers, process units, and furnaces throughout our facilities are continuously monitored, and may be adjusted within our permit limitations to help us derive strategies that mitigate risks, and maintain our competitiveness. Consideration is given to market pressures stemming from factors that balance supply and demand. Because energy intensive industries such as ours purchase relatively large amounts of fuels, publishing fuel consumption may expose us to artificial adjustments of energy production volumes, and energy spot prices by third parties. It may also put us at a significant disadvantage during negotiations with suppliers. Competitors may also gain an advantage during their negotiations with the same supplier, and gain insight on our overall corporate strategies. The net effect of this is likely to increase our cost, and erode our competitiveness globally.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 12

Comment: Fuels combusted in the units during the reporting year.

This data element should be CBI. Through the CBI determinations under Subpart C, EPA is placing companies without CEMS at a disadvantage by not protecting information provided as inputs to emission equations. For Subpart C, the quantity of each fuel combusted, the high heating value (HHV), carbon content and molecular weight of each fuel are reported where emission calculation methodology Tier 2 or 3 is used. This information, along with the identification and maximum rate heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units. Knowing the

capacity utilization of energy, competitors could then calculate the production output of production units and of that facility. Competitors could use this information along with the maximum rated and/or annual throughput required to be reported under some subparts to evaluate whether a facility has existing capacity available to increase production and market share, or is already at their maximum production and would need to invest capital to expand capacity in order to produce more. Having such information could give competitors insights to make competitive decisions on expanding their own production rates or altering their pricing strategies to the detriment of the reporting company. Further, composition fuel and is considered propriety business information.

Disclosure of fuel use, particularly fuel use by unit as required under §98.36(e)(2)(i), would reveal a facility's process operational capacity, limits, bottlenecks, and options to reconfigure in response to market change. This information can be used by competitors to the disadvantage of the reporting company. The quantity of fuel gas combusted in each combustion unit or group of combustion units is not information that is routinely reported and is not currently available to the public. For example, under the California reporting rule, fuel quantity for each combustion device is recognized as CBI. API members are claiming fuel quantity as CBI in their California emissions report.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 13

Comment: The total heat input from each fuel listed in Table C–2 that was combusted during the year.

API supports deferring this information. This data element should be CBI. HHV, carbon content and molecular weight of each fuel, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 15

Comment: Annual heat input from each type of fuel.

API supports deferring this information and classifying these elements as CBI. This data element should be CBI. HHV, carbon content and molecular weight of each fuel, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[5]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 16

Comment: Disclosure of numerous data elements that provide information about actual fuel usage, measured high heating value, and carbon content [Footnote: Examples of such data are found in Subpart C: total quantity of each type of fuel combusted (as required by §§ 98.36(e)(2)(i), 98.36(2)(e)(ii)(A)); high heat values used in the CO2 emissions calculations (§ 98.36(2)(e)(ii)(C)); quantity of each type of fuel combusted (§ 98.36(e)(2)(iv)(A)), and all the carbon content used in the emission calculations (including both valid and substitute data values) (§ 98.36(e)(2)(iv)(C)).] would also cause substantial harm to the Associations' members who are engaged in raw material purchases and product sales. For instance, disclosure of fuel use would reveal a facility's process operational capacity, limits, bottlenecks, and options to reconfigure in response to market changes. From a raw materials standpoint, if competitors had access to these data, they could calculate members' profit margins and then destroy their competitive position by driving raw material prices up to the maximum amount the profit margin would bear. From a product sales standpoint, if competitors had access to these data, they could calculate the fuel component of the members' pricing, and use this information to undercut their competitive bids. Disclosure of the data thus threatens to cause members competitive harm through the loss of sales and damage to the free market. In sum, there is no question that the "inputs into emission equations" qualify as CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)

[5] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1

Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 1

Comment: While the reporting of the fuel data is considered to be inputs to emission equations, we request that EPA change the reporting and recordkeeping for these data as follows:

- This data should be classified as CBI.
- Eliminate the requirement to report these data in any routine report.

Release of these data would harm the competitive position of companies who rely on this information to remain confidential.

For example, some ACC member companies price raw material purchases and product sales based on a combination of a base price, a fuel usage factor, and other relevant factors. Should these companies be required to submit fuel data, high heating value data, and carbon data to EPA as non-confidential data, the competitors for product sales would easily be able to calculate the fuel component of the pricing, including relative amounts of purchased natural gas and recovered process gas. Through this, the competitors would be able to undercut the pricing in competitive bids, thus leading to loss of sales, loss of competition, and loss of a free market. From a raw materials standpoint, bidding companies would be able to calculate the company's profit margin and would then be able to cut into it unfairly by driving raw material prices up to the maximum amount the profit margin would bear, thus unfairly destroying our competitive position.

ACC members cover a large spectrum of companies. Some companies are small, specialty firms with a limited product line and others are large multinationals producing hundreds of products. For those larger companies whose stationary combustion sources such as boilers serve multiple manufacturing process units throughout their larger integrated manufacturing complexes, the individual contribution of the heat into a given product may be masked; however, for a smaller company manufacturing a smaller or more limited product slate, the contribution to a specific product would be more readily discerned. Thus, the release of fuel usage data, HHV data, and carbon content data could result in substantial harm to smaller chemical companies, and these companies should be allowed to seek CBI protection for this data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 3

Comment: ***Quantity of fuel combusted*** – The total quantity of each fuel combusted in the kiln gives competitors valuable insights into the amount of lime produced each month and the production capacity of the kiln. When the amount of fuel combusted is considered along with prevailing fuel prices, competitors can gain an understanding of the operating efficiencies of a unit and be closer to understanding the kiln's cost per unit of lime produced.

[The commenter supports deferring the following data element citations.]

40 CFR § 98.36(e)(2)(i)

40 CFR § 98.36(e)(2)(ii)(A)

40 CFR § 98.36(e)(2)(ii)(D)

40 CFR § 98.36(e)(2)(iv)(A)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 17

Comment: Total quantity of each type of fuel combusted.

API supports deferring these data elements. These data elements should be CBI. Disclosure of fuel use could reveal a facility's process operational capacity, limits, bottlenecks, and options to reconfigure in response to market change. Vulnerabilities could be exploited by competition.

Total quantity of fuel is required to be reported for data elements under 98.36e2i, 98.36e2iiA, 98.36e2ivA. EIA Form 176 collects information on lease fuel (natural gas used in Natural gas used in well, field, and lease operations, such as gas used in drilling operations, heaters, dehydrators, and field compressors), pipeline fuel (natural gas consumed in the operation of pipelines, primarily in compressors), plant fuel (natural gas used as fuel in natural gas processing plants), and distribution use (natural gas used as fuel in the respondent's operations). Similarly, EIA Form 895 also collects information on Natural Gas Used as Fuel on Leases. The information reported on these forms is kept confidential and is not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA) 5 U.S.C. §552, the DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. The Energy Information Administration (EIA) will protect company information in accordance with its confidentiality and security policies and procedures. The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on these forms may also be made available, upon request, to another component of the Department of Energy (DOE), to any Committee of Congress, the General Accounting Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any non-statistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes. Company specific data are also provided to other DOE offices for the purpose of examining specific petroleum operations in the context of emergency response planning and actual emergencies.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[6],[7]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 33

Comment: For Subpart C, the [July 7, 2010 CBI proposal] would require the disclosure of the quantity of each fuel combusted. This information along with the identification and maximum rate heat capacity of each combustion unit provides competitors valuable trade information by knowing utilization rates of combustion units. Knowing the capacity utilization of energy, competitors could then calculate the production output of production units and of that facility. Competitors could use this information along with the maximum rated and/or annual throughput required to be reported under some subparts to evaluate whether a facility has existing capacity available to increase production and market share or is already at their maximum production and would need to invest capital to expand capacity in order to produce more. Having such information could give competitors insights to make competitive decisions on expanding their own production rates or altering their pricing strategies to the detriment of the reporting company. Further, composition of fuels is sometimes used between fuel producers and customers to determine the value of the fuel and is considered propriety business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 19

Comment: Monthly high heat values used in the CO2 emissions calculations for each type of fuel combusted.

API supports deferring this information and classifying this data element as CBI.

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[6] This comment was incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.

[7] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

This data element should be CBI. HHV, carbon content and molecular weight of each fuel, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[8],[9]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 35

Comment: For Subpart C, the [July 7, 2010 CBI proposal] would require the disclosure of the HHV. This information along with the identification and maximum rate heat capacity of each combustion unit provides competitors valuable trade information by knowing utilization rates of combustion units. Knowing the capacity utilization of energy, competitors could then calculate the production output of production units and of that facility. Competitors could use this information along with the maximum rated and/or annual throughput required to be reported under some subparts to evaluate whether a facility has existing capacity available to increase production and market share or is already at their maximum production and would need to invest capital to expand capacity in order to produce more. Having such information could give competitors insights to make competitive decisions on expanding their own production rates or altering their pricing strategies to the detriment of the reporting company. Further, composition of fuels is sometimes used between fuel producers and customers to determine the value of the fuel and is considered propriety business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 22

Comment: Quantity of each type of fuel combusted

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[8] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.

[9]Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

API supports deferring these data elements. These data elements should be CBI. Disclosure of fuel use could reveal a facility's process operational capacity, limits, bottlenecks, and options to reconfigure in response to market change. Vulnerabilities could be exploited by competition.

Total quantity of fuel is required to be reported for data elements under 98.36e2i, 98.36e2iiA, 98.36e2ivA. EIA Form 176 collects information on lease fuel (natural gas used in Natural gas used in well, field, and lease operations, such as gas used in drilling operations, heaters, dehydrators, and field compressors), pipeline fuel (natural gas consumed in the operation of pipelines, primarily in compressors), plant fuel (natural gas used as fuel in natural gas processing plants), and distribution use (natural gas used as fuel in the respondent's operations). Similarly, EIA Form 895 also collects information on Natural Gas Used as Fuel on Leases. The information reported on these forms is kept confidential and is not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA) 5 U.S.C. §552, the DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. The Energy Information Administration (EIA) will protect company information in accordance with its confidentiality and security policies and procedures. The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on these forms may also be made available, upon request, to another component of the Department of Energy (DOE), to any Committee of Congress, the General Accounting Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any non-statistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes. Company specific data are also provided to other DOE offices for the purpose of examining specific petroleum operations in the context of emergency response planning and actual emergencies.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 4

Carbon content of fuel – The fuel's carbon content tells a competitor about the fuel type and quality and what impurities (e.g., sulfur) might be in the lime product.

[The commenter supports deferring the following data element citations.]

40 CFR § 98.36(e)(2)(iv)(C)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 23

Comment: All carbon contents used in the emission calculations (including both valid and substitute data values).

API supports deferring this information. This data element should be CBI. HHV, carbon content and molecular weight of each fuel, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 24

Comment: All gas molecular weight values used in the emission calculations (including both valid and substitute data values).

API supports deferring this information. This data element should be CBI. HHV, carbon content and molecular weight of each fuel, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 25

Comment: Monthly average values for carbon content used in the emission calculations (including both valid and substitute data values).

Deferred reporting. API supports deferring this information. This data element should be CBI. HHV, carbon content and molecular weight of each fuel, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 26

Comment: Monthly average values for gas molecular weight values used in the emission calculations (including both valid and substitute data values).

API supports deferring this information. This data element should be CBI. HHV, carbon content and molecular weight of each fuel, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[10],[11]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 36

Comment: For Subpart C, the [July 7, 2010 CBI proposal] would require the disclosure of the carbon content and molecular weight of each fuel where emission calculation methodology Tier 2 or 3 is used. This information along with the identification and maximum rate heat capacity of each combustion unit provides competitors valuable trade information by knowing utilization rates of combustion units. Knowing the capacity utilization of energy, competitors could then calculate the production output of production units and of that facility. Competitors could use this information along with the maximum rated and/or annual throughput required to be reported under some subparts to evaluate whether a facility has existing capacity available to increase production and market share or is already at their maximum production and would need to invest capital to expand capacity in order to produce more. Having such information could give competitors insights to make competitive decisions on expanding their own production rates or altering their pricing strategies to the detriment of the reporting company. Further, composition

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[10] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.

[11] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

of fuels is sometimes used between fuel producers and customers to determine the value of the fuel and is considered propriety business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1..

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 27

Comment: The annual average measured HHV data used to calculate CH4 and N2O emissions.

API supports deferring this information and classifying this information as CBI. HHV data can be used with fuel consumption rates and combined with publicly available information on the maximum rated heat capacity, provides competitors with the utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 32

Comment: Annual average HHV value used in Equation C-13 of this subpart for each fossil fuel.

API supports deferring this data element and classifying this information as CBI. HHV data can be used with fuel consumption rates and combined with publicly available information on the maximum rated heat capacity, provides competitors with the utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 33

Comment: Total quantity of fossil fuel combusted during the reporting year.

API supports deferring this data element and classifying this information as CBI. Disclosure of fuel use could reveal a facility's process operational capacity, limits, bottlenecks, and options to reconfigure in response to market change. Vulnerabilities could be exploited by competition.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 30

Comment: Percentage of source operating hours in which a substitute data value of stack gas flow rate and moisture content was used in the emissions calculations.

(Note, this data element was deferred even though it was not originally categorized as an Input to Emission Equation.) API supports deferring this information. This data element should be CBI. This data can indicate the reliability of a unit or process. Where significant missing data procedures are used, a competitor could infer poor reliability and identify a market opportunity to the detriment of the reporting company. As the emissions reporting rule does constitute control of emissions and there is no penalty for unit downtime, this information should remain confidential.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 34

Comment: Results of quarterly sample analysis.

API supports deferring this data element and classifying this information as CBI. Fuel composition data, along with the identification and maximum rated heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 28

Comment: The value of the molar volume constant (MVC) used in Equation C–5.

This data element is a constant. There is no need to defer this or to treat this as CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 59

Comment: The reporting of the total annual amount of sorbent used (98.36e2viiiA) is a rare situation and should not be deferred.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 61

Comment: The reporting of the sorbent molecular weight (98.36e2viiiB) is a rare situation [and the commenter suggests a default value be used].

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 62

Comment: The reporting of the ratio "R" used in equation C-11 (98.36e2viiiC) is a rare situation [and the commenter suggests a default value be used.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 19

Comment: As Dr. Sahu explains, "[i]n a few instances, where "production related" elements are required, they are generally fuel use related where the type and quantity of fuel used is requested. This is basic utility data, often incidental to the main production process, where the combustion unit serves a secondary purpose such as in providing hot water or steam or serves as a heat exchanger, etc."

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 58

Comment: The reporting of the percent of source operating hours in which a substitute data value was used for CO2 concentration, stack gas flow rate, or stack gas moisture content (98.36e2viC) should not be deferred because this is not business-sensitive information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 18

Comment: Dr. Sahu's review of Subpart C, covering general stationary combustion sources, demonstrates that the deferred data elements are not CBI. Many of the deferred data elements are plainly not of competitive relevance, including data points noting the hours a particular monitoring device operates, or are already being reported. Publicly available data elements include fuel consumption and heat rate figures, which are widely reported in permitting documents.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 6

Comment: Many of the Subpart C data elements identified in Table 1 are already publicly available; however, as discussed above and in Section II.B of our comments, these data elements should nonetheless be protected from public disclosure because, in the aggregate with the Subpart G data elements, they allow a competitor to create an accurate estimate of a facility's cost structure and operating efficiencies.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 1

Comment: The reporting of the heat input estimate (98.36b9iii) should not be deferred because this information has been reported elsewhere. [Commenter references boiler process data template from ICR as an example where sources have reported this information before. See Ex. C1, Worksheet "Process Data Organics Testing," Column M.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 2

Comment: The reporting of estimates for heat input from each type of fuel (98.36c2ix) should not be deferred because this information has been reported elsewhere. [Commenter references boiler process data template from an information collection request (ICR) as an example where sources have reported this information before. See Ex. C1, Worksheet "Process Data Organics Testing," Column M.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 45

Comment: The reporting of the total heat input from each fuel (98.36d1iv) should not be deferred because this information has been reported elsewhere. [Commenter references boiler process data template from ICR as an example where sources have reported this information before. See Ex. C1, Worksheet, Process Data Organics Testing" Column M.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 46

Comment: The reporting of the annual heat input from each fuel (98.36d2iiG) should not be deferred because it is a calculation based on the amount of fuel and heat input, data which has been reported elsewhere. [Commenter references boiler process data template from ICR as an example where sources have reported heat input before. See Ex. C1, Worksheet, Process Data Organics Testing," Column M. Commenter also references an example of a USDOE form EIA-767, where organic-fueled or combustible renewable stream-electric generating plants are required to report fuel type and quantity consumed. See Ex. C3, p. vii.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 47

Comment: The reporting of the annual heat input from each fuel (98.36d2iiiG) should not be deferred because it is a calculation based on the amount of fuel and heat input, data which has been reported elsewhere. [Commenter references boiler process data template from ICR as an example where sources have reported heat input before. See Ex. C1, Worksheet "Process Data Organics Testing," Column M. Commenter also references an example of a USDOE form EIA-

767, where organic-fueled or combustible renewable stream-electric generating plants are required to report fuel type and quantity consumed. See Ex. C3, p. vii.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 48

Comment: The reporting of the total quantity of each fuel type combusted (98.36e2i) should not be deferred because the information is a common reporting requirement in all permits. [Commenter references an example of a USDOE form EIA-767, where organic-fueled or combustible renewable stream-electric generating plants are required to report fuel type and quantity consumed. See Ex. C3, p. vii.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 49

Comment: The reporting of the total quantity of each fuel type combusted (98.36e2iiA) should not be deferred because the information is a common reporting requirement in all permits. [Commenter references an example of a USDOE form EIA-767, where organic-fueled or combustible renewable stream-electric generating plants are required to report fuel type and quantity consumed. See Ex. C3, p. vii.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 50

Comment: The reporting of the Monthly high heat values used in the CO2 emissions calculations for each type of fuel combusted (98.36e2iiC) should not be deferred because heating values for common fuels are available in standard references. [Commenter references an

example of a USDOE form EIA-767, where organic-fueled or combustible renewable stream-electric generating plants are required to report heat content (See Ex. C3, p. vii). This form also contains an energy source table (see p. xxii) that presents a range of heating values for certain fuels. Commenter also references an ICR spreadsheet for a facility reporting fuel material analysis information; see Ex. C4, "Fuel Sample Results" worksheet, which contains reported higher heating values.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 51

Comment: The reporting of total steam produced annually from MSW or solid fuel combustion (98.36e2iiD) should not be deferred because this information has been reported elsewhere. [Commenter references boiler process data template from ICR as an example where sources have reported this information before. See Ex. C1, Worksheet "Process Data Organics Testing," Column N.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 52

Comment: The reporting of the ratio of maximum rate heat input capacity to design rated steam output capacity of the unit (98.36e2iiD) should not be deferred because this is a calculation based on information reported elsewhere. [Commenter references boiler process data template from ICR as an example where sources have reported this information before. See Ex. C1, Worksheet "Process Data Organics Testing," Columns M and N.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 53

Comment: The reporting of the quantity of each fuel type combusted (98.36e2ivA) should not be deferred because the information is a common reporting requirement in all permits. [Commenter references boiler process data template from ICR as an example where sources have reported this information before. See Ex. C1, Worksheet "Process Data Organics Testing," Column C.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 54

Comment: The reporting of the carbon content used in the emission calculations (98.36e2ivC) should not be deferred because carbon contents for most fuels are available in standard references. [Commenter references http://bioenergy.ornl.gov/papers/misc/energy_conv.html as an example.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 55

Comment: The reporting of gas molecular weight values used in the emission calculations (98.36e2ivC) should not be deferred because gas molecular weights are available in standard references. [Commenter references http://www.engineeringtoolbox.com/molecular-weight-gas-vapor-d_1156.html as an example.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 56

Comment: The reporting of annual average measured HHV data used to calculate CH4 and N2O emissions (98.36e2ivF) should not be deferred. HHV data for common fuels are available in standard references.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 57

Comment: The reporting of the molar volume constant (MVC) used in Equation C–5 (98.36e2ivG) should not be deferred because it is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 60

Comment: The reporting of the carbon-based F-factor used in Equation C-13 for each fossil fuel (98.36e2ixD) should not be deferred because this information is available in the regulations as provided in the equation. [Commenter references boiler ICR spreadsheet for Fuel Material Analysis Information (see Ex. C4) as well as EPA Method 19.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 63

Comment: The reporting of the annual average HHV used in equation C-13 for each fossil fuel (98.36e2ixE) should not be deferred because it is an arithmetic calculation based on information already available.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 64

Comment: The reporting of the total annual quantity of fossil fuel combusted (98.36e2ixF) should not be deferred because it is based on information already available.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 65

Comment: The reporting of results from each quarterly sample analysis (98.36e2xA) should not be deferred because fuel composition is already being reported. [Commenter references boiler process data template from ICR as an example where sources have reported this information before. See Ex. C1, Worksheet "Process Data Organics Testing," Column C.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 66

Comment: The reporting of quarterly sample analysis results (98.36e2xi) should not be deferred because fuel composition is already being reported. [Commenter references boiler process data template from ICR as an example where sources have reported this information before. See Ex. C1, Worksheet "Process Data Organics Testing," Column C.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Catharine A. Fitzsimmons, Chief Air Quality Bureau
Commenter Affiliation: Iowa Department of Natural Resources (DNR)

Document Control Number: EPA-HQ-OAR-2010-0929-0014.1
Comment Excerpt Number: 3

Comment: Reporting requirements in the EPA's GHG Reporting Program should be consistent with other EPA programs.

If a category of data elements is already reported to EPA under the authority of another EPA program, there is no need to defer reporting of that same data element in the GHG Reporting Program. Many of the data elements in 40 CFR 98 Subpart A Table A-6 such as heat input, activity/throughput, emission factor, etc. are collected from sources by State/Local/Tribal air agencies who then report them to EPA under the AERR for the NEI.

A specific example of an input to equation data element that is already publically available is the total annual heat input per fuel for Acid Rain-affected units [98.36(d)(1)(iv)]. This data element is reported to EPA under the Acid Rain program and is publically available on EPA's Clean Air Market Division's website [http://camddataandmaps.epa.gov/gdm]. Since this type of data element is already in the public domain, it should not be considered to be sensitive and should not be deferred in the GHG Reporting Program for any stationary fossil fuel combustion source, regardless of the tier method used to calculate emissions.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0929-0007.1
Comment Excerpt Number: 3

Comment: [The commenter supports deferring the following data element citations].

Tier 4 Calculation Methodology reporting requirements specified under 98.36

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

5.0 SUBPART E

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 14

Comment: The data elements in each subpart that are considered sensitive and could cause harm are too numerous to list. Some of the specific data elements that EPA proposed to treat as non-confidential "emissions related" information in its December 27, 2010 Notice of Proposed Rulemaking[12] include data on production and throughput such as "anode consumption" – 98.66(e)(1); "amount of each fluorinated GHG consumed for each recipe – 98.96(k); and "mass of spent liquor solids combusted" – 98.276(c). Some of the specific data elements for throughput include "adipic acid production" - 98.56(b) and (c), and annual production of pulp and;or paper products produced" § §98.276(k), and "nitric acid production" - 98.226(c), (d), and (e).

The following data elements are examples of information that has been historically considered as Confidential Business Information

* Annual adipic acid production (tons) - 98.56(b)

* Annual adipic acid production during which N2O abatement technology is operating (tons) - 98.56(c)

* Annual process N2O emissions that is sold or transferred off site (metric tons) - 98.56(d) Types of abatement technologies used - 98.56(f)

* Abatement technology destruction efficiency for each abatement technology (percent destruction) - 98.56(g)

* Abatement utilization factor for each abatement technology (fraction of annual production that abatement technology is operating) - 98.56(h)

* Number of times in the reporting year that missing data procedures were followed to measure adipic acid production (months) - 98.56(i)

* Emissions factor (lb N2O /ton adipic acid - 98.56(j)(1)

* Production rate per test run during performance test (tons/hr) - 98.56(j)(3)

* N2O concentration per test run during performance test (ppm N2O) - 98.56(j)(4)

* Volumetric flow rate per test run during performance test (dscf/hr) - 98.56(j)(5)

* Number of test runs - 98.56(j)(6)

* Number of times in the reporting year that a performance test had to be repeated - 98.56(j)(7)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data

[12] EPA notes that our proposed determination that inputs to equations are emissions data was proposed in the July 7, 2010 CBI proposal, not in the December 27, 2010 deferral proposal.

elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

6.0 SUBPART F

Commenter Name: Charles D. Johnson, Vice President, Environment Health & Safety
Commenter Affiliation: The Aluminum Association, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0031.1
Comment Excerpt Number: 2

Comment: Annual Aluminum Production – is a key indicator of economic performance for companies. The Aluminum Association never publishes company specific production data, and strives to publish such statistics only when combined for at least three companies in order to insure confidentiality and compliance with the antitrust laws. In effect, the EPA proposal to make public aluminum primary production data will lead to the publication of information that the Aluminum Association itself does not publish in compliance with the antitrust laws. The Aluminum Association believes that the justification of the confidentiality of production data should be at the discretion of individual reporting facilities.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Ritts
Commenter Affiliation: National Environmental Development Group, Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 2

Comment: For each of these I'll describe the process and then I'll describe how greenhouse gases are calculated and then talk about the implications. For aluminum, aluminum is made by dissolving aluminum oxide in molten cryolite at 1740 degrees Fahrenheit and using electrolysis to produce pure aluminum from the alumina ore. The process takes place in electrolyte cells or "pots" where carbon cathodes form the bottom of the pot and act as a negative electrode. Carbon anodes which are the positive electrodes are held at the top of the pot and are consumed during the process when they react with oxygen coming from the alumina. So, as the aluminum is produced, the carbon forms CO_2 that is released from the process and emitted to the atmosphere. The formula is pretty simple. It's two molecules of alumina or aluminum oxide, plus carbon yields four molecules of aluminum and three molecules of CO_2. Note that this is basically the same formula used to calculate GHGs reported to EPA. In other words, GHG emissions reported to EPA are calculated from net carbon anode consumption per ton of aluminum produced times the ton of aluminum produced during the year. And I've given you the equation for that in the testimony I handed to the EPA people. It's essentially carbon dioxide equals the net carbon

times the production. Annual aluminum production and carbon consumption are key indicators of economic performance for aluminum smelters and thus knowledge of these performance indicators can be used to determine a smelter's operating costs, raw material requirements and/or energy demands. Some aluminum companies (though not necessarily Alcoa, NEDA's member) would consider production data and carbon consumption to be competitively sensitive because this information can be used in product pricing and negating purchase prices for raw materials and energy contracts.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 5

Comment: Production rate and anode consumed in the production of aluminum is sensitive and can be used by competitors to derive pricing information and production efficiencies. Similar information can be used to manipulate markets for raw ore by suppliers and undercut pricing by competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Charles D. Johnson, Vice President, Environment Health & Safety
Commenter Affiliation: The Aluminum Association, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0031.1
Comment Excerpt Number: 1

Comment: Production data and related metrics relate mainly to economic performance and competitive interests that the Aluminum Association, and its member companies, believes should be protected at the discretion of the reporting party.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 12

Comment: The data elements in each subpart that are considered sensitive and could cause harm are too numerous to list. Some of the specific data elements that EPA proposed to treat as non-confidential "emissions related" information in its December 27, 2010 Notice of Proposed Rulemaking[13] include data on production and throughput such as "anode consumption" – 98.66(e)(1).

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Charles D. Johnson, Vice President, Environment Health & Safety
Commenter Affiliation: The Aluminum Association, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0031.1
Comment Excerpt Number: 3

Comment: PFC Specific Information and Measurement Method – the combination of PFC specific information and the method used to measure such emissions would lead to the ability of competitors to easily back-calculate production levels for primary aluminum companies. In effect, it is essentially the same as publishing production data itself.

The Aluminum industry has been at the forefront of voluntary self-regulation for over 25 years, and has for much of that time published industry average data for the PFC variables which EPA now seeks to make non-confidential. Using the aggregated data in the International Aluminium Institute's Anode Effect Survey in Table 3 (p.10), and in Appendix A, it is possible to back-calculate production for each of the six predominant aluminum smelting technologies. The disclosure of anode effect and duration may also provide competitors with insight into others' production efficiency.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Charles D. Johnson, Vice President, Environment Health & Safety
Commenter Affiliation: The Aluminum Association, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0031.1
Comment Excerpt Number: 4

Comment: Annual Anode Production Paste Consumption and Other Smelter Specific Inputs – aluminum production is directly related to the amount of anode consumed during the production process. Reporting of anode consumption data is therefore equivalent to reporting aluminum

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[13] EPA notes that our proposed determination that inputs to equations are emissions data was proposed in the July 7, 2010 CBI proposal, not in the December 27, 2010 deferral proposal.

production levels. Paste production is the direct input data for calculating anode manufacturing and therefore relates to anode consumption. Ratios for anode consumption per ton of aluminum produced are available for all of the predominant smelting technologies. The general average for anode coke is reported at .5 tons of anode per ton of aluminumii (Altenpohl, 10). More specific consumption data for various smelting technologies are widely available. Similarly, specific metrics such as sulfur and ash, which are components of paste and therefore can be used to determine facility paste production, also relate directly with anode manufacturing.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

7.0 SUBPART G

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 7

Comment: TFI believes that all of the Subpart G inputs to emission equations set forth in Table 2 should be considered confidential business information by EPA and not available for public disclosure. Many TFI members keep this information as confidential in their normal course of business. Providing natural gas consumption data ($Fdstk_n$), natural gas composition (CC_n, MW, MVC), and natural gas usage data on a unit-specific basis as required by the Mandatory Greenhouse Gas Reporting Rule provides precise information on the ability of a unit to transform the natural gas to a usable product. Further, the detailed information about the feedstock quantity and composition permits a competitor to determine the source of the feedstock from which he can infer, based on market knowledge, the price paid for the feedstock used in the production of ammonia. These data, when used in concert with the information provided in Subpart C, will enable a competitor to create an accurate estimate of a facility's cost structure and operating efficiencies. Roughly 90 percent of the production cost of ammonia is the natural gas feed. By providing precise data, competitors will be able to benchmark their ammonia process against a reported U.S. plant's process. Knowing that a unit is more efficient provides information to competitors to conduct specific research of a company's purchases and licensing contractors. This information will provide a competitor with the opportunity to copy the technology and achieve similar efficiencies, at the expense of the reporting plant. In most cases, the modifications to an ammonia plant to make it competitive are not patentable and driven primarily by the experience of the company operating the unit. Thus, it is critical to protect these data elements from disclosure.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.2
Comment Excerpt Number: 2

Comment: In the Greenhouse Gas Reporting Rule CBI proposal, EPA concludes that the proposal, if adopted, will not impose a significant economic impact on a substantial number of small entities. Further, EPA relies on its earlier Regulatory Flexibility Act analysis prepared for the Greenhouse Gas Reporting Rule to support its conclusion. What EPA fails to recognize, however, is that by disclosing "emissions" that are not releases to ambient air, and by disclosing unit-specific direct emissions, significant economic harm will occur to domestic producers of ammonia and nitric acid. EPA previously recognized the associated limitations with the Rule in the context of ammonia and nitric acid manufacturing: Domestic producers of synthetic nitrogen-based fertilizer make up less than one half of the total amount of synthetic nitrogen-based fertilizer used in the United States. The remaining share is made up by synthetic nitrogen-based fertilizer imports, as well as fertilizer produced domestically outside of the Nitric Acid and Ammonia production industries using imported ammonia and nitric acid. 75 Fed. Reg. 48,744, 48,767 (August 11, 2010). As EPA is aware, importers of synthetic nitrogen-based fertilizers and domestic fertilizers produced outside of the nitric acid and ammonia industries using imported ammonia and nitric acid are not required to report greenhouse gas emissions. By denying domestic manufacturers of synthetic nitrogen-based fertilizers at ammonia or nitric acid facilities the opportunity to claim as confidential these data elements, sensitive process-related information will fall into the hands of competitors. This harm, which is not accounted for in any EPA analysis of the Rule, is demonstrated in the ammonia manufacturing sector as set forth in Section A.1 of our comments. Further evidence of this harm is found where an ammonia plant must report the amount of "CO_2 from the steam reforming of a hydrocarbon or the gasification of solid and liquid raw material at the ammonia manufacturing process unit used to produce urea . . . ." 75 Fed. Reg. at 48,801 (proposed 40 C.F.R. § 98.76(b)(13)). In turn, sources generating carbon dioxide and shipping the carbon dioxide off-site for subsequent use must report this quantity of carbon dioxide. *See, e.g.*, 40 C.F.R. §§ 98.426(a)(1), (b)(1), (c), (d). These reported values could be used to estimate ammonia production rates which, when combined with natural gas usage data, could be used to identify source-specific efficiencies and sensitivities to fluctuations in natural gas price. Clearly, disclosure of these data elements could cause substantial harm to the competitive positions of the sources required to report this information to EPA if it is deemed not protected from disclosure.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.2
Comment Excerpt Number: 1

Comment: For an ammonia process, knowing the carbon dioxide generated by the production process and the carbon dioxide from the fuel combustion allows for a reasonable postulation of plant performance. Providing natural gas composition and natural gas usage data[12] on a unit specific basis provides more precise information on the ability of the unit to transform the natural gas to a usable product. Roughly 90 percent of the production cost of ammonia is the natural gas feed. By providing precise data, competitors will be able to benchmark their ammonia process against a reported U.S. plant's process. Knowing that a unit is more efficient provides information to competitors to conduct specific research of a company's purchases and licensing contractors. This information will provide a competitor with the opportunity to copy the technology and achieve similar efficiencies, at the expense of the reporting plant. In most cases, the modifications to an ammonia plant to make it competitive are not patentable and driven primarily by the experience of the company operating the unit. Thus, it is critical to protect plant-specific information from disclosure.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 8

Comment: Although some TFI members do not maintain these data elements as confidential, as discussed above and in Section II.A of our comments, these data elements should nonetheless be protected from public disclosure because, in the aggregate with the Subpart C data elements, they allow a competitor to create an accurate estimate of a facility's cost structure and operating efficiencies.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

8.0 SUBPART H

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 20

Comment: Data elements covering the cement industry are publicly available or competitively irrelevant. For example, information on clinker composition has already been reported to EPA as a part of an information collection request, clinker recycling rates are also publicly known, and monthly clinker production has already been reported by companies operating in Europe.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 71

Comment: The reporting of monthly kiln-specific clinker CO2 emission factors (98.86b10) should not be deferred because CO2 data is from CEMS and is therefore emissions data. Production data is available from recordkeeping.

Response: EPA notes that CEMS data are not used to calculate emission factors used by reporters using the method in 40 CFR.83(b). EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 72

Comment: The reporting of quarterly kiln-specific CKD CO2 emission factors (98.86b11) should not be deferred because CO2 data is from CEMS and is therefore emissions data. Production data is available from recordkeeping.

Response: EPA notes that CEMS data are not used to calculate emission factors used by reporters using the method in 40 CFR.83(b). EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 73

Comment: The reporting of annual organic carbon content of each raw kiln feed or raw material (98.86b12) should not be deferred because this information has previously been reported by companies as part of NESHAPs ICR. [Commenter references an ICR response for an Ash Grove Cement Company plant, containing materials data. See Ex. CEM6: Ashgrove Durkee (example) EPA-HQ-OAR-2002-0051-3572, last several pages.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 74

Comment: The reporting of annual consumption of each raw kiln feed or raw material (98.86b13) should not be deferred because this information has previously been reported by companies as part of NESHAPs ICR. [Commenter references an ICR response for an Ash Grove Cement Company plant, containing materials data. See Ex. CEM6: Ashgrove Durkee (example) EPA-HQ-OAR-2002-0051-3572, p. 4.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 75

Comment: The reporting of monthly kiln-specific clinker factors (98.86b15) should not be deferred because this information has previously been reported for kilns in Europe. [Commenter references a study published in Romania, showing clinker content for two Holcim plants. See Ex. CEM1: Holcim Romania paper 2002, p. 23.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 67

Comment: The reporting of monthly clinker production (98.86b2) should not be deferred because the value can be calculated or estimated from cement production by assuming a typical factor or by direct measurement. Additionally, this information is reported in Europe. [Commenter references a study published in Romania, showing clinker content for two Holcim plants. See Ex. CEM1: Holcim Romania paper 2002, p. 23.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 68

Comment: The reporting of quarterly quantity of CKD not recycled to the kiln (98.86b5) should not be deferred because the information is similar to information previously reported by companies as part of NESHAPs ICR. [Commenter references an ICR response for an Ash Grove Cement Company plant, containing materials data. See Ex. CEM6: Ashgrove Durkee (example) EPA-HQ-OAR-2002-0051-3572, p. 4.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 69

Comment: The reporting of the monthly fractions of total CaO, non-calcined CaO, total MgO, and non-calcined MgO in clinker (98.86b6) should not be deferred because this information is essentially reported in public. [Commenter references a study published in Romania, showing annual average values for two Holcim plants. See Ex. CEM1: Holcim Romania paper 2002, p.26.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 70

Comment: The reporting of the quarterly fractions of total CaO, non-calcined CaO, total MgO, and non-calcined MgO in clinker (98.86b8) should not be deferred because this information is already reported in public. [Commenter references a presentation from a 2008 Portland Cement Association Manufacturing Technical Committee Meeting, which details an investigation into the Use of Cement Kiln Dust (CKD) for Wastewater Treatment. See Ex. CEM7: Prof. Walsh Powerpoint, Dalhousie University.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

9.0 SUBPART I

Commenter Name: D. Mark Durcan, President and Chief Operating Officer
Commenter Affiliation: Micron Technology, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0026.1
Comment Excerpt Number: 4

Comment: Since 1996, Micron has voluntarily reported emissions of fluorinated compounds annually to EPA as a member of EPA's PfC Reduction/Climate Partnership for the Semiconductor Industry, even though Micron and the semiconductor industry as a whole account for only about 0.1% of the U.S. GHG inventory. Under the "Memorandum of Understanding (MOU) Between the Semiconductor Industry Association (SIA) and EPA", 2001, the detailed information that Micron collects and reports is managed as confidential business information "due to its potential competitive significance". www.epa.gov/semiconductor-pfc. EPA has also recognized the proprietary nature of this information in "Emission Factors for Semiconductor Manufacturing", Draft Report, Prepared for Scott Bartos, EPA; Prepared by C. Shephard Burton, Ph. D., February 2006 ("All of the information required to develop emissions factors for semiconductor manufacturing is...proprietary").

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[14]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0924-0043.1
Comment Excerpt Number: 2

Comment: In the early 1990's, SIA member companies joined with EPA to form the "PFC Emission Reduction Partnership for the Semiconductor Industry." This Partnership was formalized in a 1996 Memorandum of Understanding (MOU) [...] due to the highly sensitive nature of the company-specific emissions information, the MOUs contain provisions to protect the confidentiality of this information. Thus, for more than a decade under its MOUs with SIA, EPA has recognized the highly sensitive nature of PFC emission data and calculation methodology information to the semiconductor industry, and has explicitly endorsed a comprehensive procedure to maintain its confidentiality.

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[14] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2010-0929-0027.1
Comment Excerpt Number: 3

Comment: Achieving environmental goals in a manner that protects confidential business information (CBI) is of critical importance to SIA members. Throughout EPA's rulemakings for the recently finalized Greenhouse Gas (GHG) Mandatory Reporting Rule for the electronics industry (Final Subpart I),[Footnote: Mandatory Reporting of Greenhouse Gases: Additional Sources of Fluorinated GHGs; Final Rule, 75 Fed. Reg. 74,774 (Dec. 1, 2010).] SIA has repeatedly raised concerns over the ability of its members to maintain the confidentiality of their intellectual property (IP). In response to the issuance of the final rule, SIA has petitioned for reconsideration and for judicial review due, in significant part, to the serious vulnerabilities the rule presents for our members in their ability to protect their intellectual property. SIA is also filing additional comments today that further discuss our concerns in response to EPA's "Call for Information: Information on Inputs to Emission Equations Under the Mandatory Reporting of Greenhouse Gases Rule," published at 75 Fed. Reg. 81365 (Dec. 27, 2010). As detailed in these other documents, incorporated here by reference, SIA has serious concerns with the process level data required to be reported and maintained under the rule. This information involves highly sensitive and business critical manufacturing and process information, including trade secret data that is at the heart of our semiconductor manufacturing processes.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2010-0964-0024.1
Comment Excerpt Number: 3

Comment: SIA understands that its members all have robust programs to protect their intellectual property. SIA also has taken great care in preparing its Petition for Reconsideration by retaining an independent 3rd party – the International SEMATECH Manufacturing Initiative (ISMI) – to survey its members regarding their recipe-related information that would be implicated by the Final Subpart I and by having ISMI report the results of that survey in a manner that retains the confidentiality of the information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Jay M. Dietrich, CEA Program Manager: Climate Stewardship, Senior Technical Staff Member
Commenter Affiliation: IBM
Document Control Number: EPA-HQ-OAR-2010-0964-0025.1
Comment Excerpt Number: 1

Comment: The public availability of at least two categories of inputs to emission equations data elements would cause harm to electronics manufacturing reporters. The first category of inputs includes annual manufacturing capacity and annual production information, specifically data required in 98.96(a) and 98.96(e). This category of information should be treated as Confidential Business Information (CBI) for the reasons described in the section below.

Subsection 98.96(a) requires reporting of annual manufacturing capacity of each facility as the sum of the maximum designed substrate starts of a facility for each month times the substrate surface area per month. For a particular facility, the designed substrate starts for a given month will vary based not only on tooling changes made relative to a previous month, but also on the mix of product to be manufactured in the given month. For example, a product manufactured at a 45nm node may require x passes through a plasma etch process, whereas a product manufactured at a 22nm node may require $x + y$ passes through a plasma etch process due to the increased complexity of the smaller node. Thus, the designed substrate starts for a 22nm product may be lower than for a 45nm product.

In addition, Subsection 98.96(e) requires reporting of annual production in terms of substrate surface area. Such information on actual annual production, coupled with information on the monthly designed substrate starts constitutes sensitive business information which could reveal competitive intelligence on the particular product mix being manufactured at a particular facility. This category of information should therefore be treated as CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: D. Mark Durcan, President and Chief Operating Officer
Commenter Affiliation: Micron Technology, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0026.1
Comment Excerpt Number: 3

Comment: Micron not only takes reasonable but extraordinary measures to protect its process and other trade secrets. Micron requires its employees to execute a confidentiality agreement prohibiting the unauthorized disclosure of such information. Micron permits the dissemination of its trade secrets among its employees only on a "need to know" basis. Micron has constructed a fence around its facilities, posted signs restricting access to its facilities to authorized personnel, and employed security guards to prevent unauthorized entry. Within its facilities, Micron maintains a system of alarms and security badges to detect the presence of persons who

are neither employees nor authorized visitors. Employee access to various buildings and areas within Micron's facilities is restricted to employees whose duties require them to have access to those areas and buildings. Micron requires employees to keep confidential technical information in locked files. Micron not only requires visitors at its facilities to sign its visitors' log and to wear badges but also requires them to be escorted by an authorized Micron employee. Suppliers must sign an agreement acknowledging that they must assist Micron in taking these reasonable safeguards to protect the confidentiality of Micron's technical information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[15]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0927-0131.1
Comment Excerpt Number: 5

Comment: As described in our comments on the original proposed Rule, GHG gas usage and emissions by process is considered highly sensitive by the semiconductor industry. This information can provide specific knowledge of proprietary device design and manufacturing processes. Furthermore, facility production data and specific GHG usage and apportionment among processes can be used to inappropriately "characterize" manufacturing operations:

1. Provides customers and competitors an incomplete picture of manufacturing efficiencies
2. Influences prospective customer decisions based on perceived efficiencies and pricing
3. Reveals customer or supplier sensitive product information

Information about which gases a facility uses in which processes and in what amounts would reveal competitively valuable, trade secret information. Indeed, such details of GHG usage and emissions by process would provide those familiar with our industry specific knowledge of proprietary device designs and manufacturing processes, and also effectively may reveal customer sensitive product information based on manufacturing loadings. Annual production levels and/or facility capacities also could be used by competitors to characterize manufacturing efficiencies and to influence prospective customer decisions.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

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[15] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

Commenter Name: Leslie Ritts
Commenter Affiliation: National Environmental Development Groups, Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 5

Comment: To understand how the semiconductor industry regards the sensitivity of raw material and production information and how it guards it from the public. In this process involving hundreds of photographic and chemical processing steps in which electronic circuits are gradually created on wafers made of pure silicon and other semiconducting material. Each step has a specifically defined chemical "recipe" that defines the precise chemical use and other process conditions that are required to produce the nanometer scale features on a modern semiconductor chip.

A most critical proprietary step, this process includes etching circuitry by exposing the semiconductor wafer to a bombardment of ions that are usually a plasma of reactive gases, generally fluorocarbons to dislodge portions of the material from the exposed surface. The fluorocarbons used are inputs into calculating GHGs released from a fab. Companies put tremendous amounts of research and development resources into developing these process steps and consider them highly confidential. The electronics sector reporting rule would require semiconductor manufacturers to disclose information about the type and quantity of raw materials and usage in calculating GHG emissions. The release of such information poses significant risks to a semiconductor company's competitive position in a very fast moving industry where piracy by other nationalized industries in the world is well-recognized.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 4

Comment: NEDA/CAP illustrated in its hearing testimony on the proposed rulemaking that requiring semiconductor companies to report GHGs used in their manufacturing process under 40 CFR §98.96 or apportioned fluorinated GHG consumption into nine process categories defined in §§98.93(a)(a)(i) – (a)(1)(iii) or by individual process reveals for competitors how a computer chip is made, and other information about business loadings, plant capacities, and process technologies that are the most sensitive information in the chip industry. This information can be used by others to increase process yield and lower operational costs by modifying their own processes. See also comments submitted in this rulemaking by Semiconductor Industry Association on Sept, 7 2010 in EPA Docket EPA-OAR-2009-0924, in

which the semiconductor industry emphasizes that modification in gas ratios to adjust their own production processes and even downtime in operations can be used by competitors to compete with customers, who may interpret such downtime as correction action for process defects.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.1
Comment Excerpt Number: 1

Comment: TI believes that its competitive position will be seriously harmed if certain confidential and trade secret data (i.e., CBI) required to be reported under the MRR, specifically "inputs to emission equations" data, is made public. Competition is intense among semiconductor manufacturers and trade secret process technology information is frequently the topic of industrial espionage cases. Semiconductor companies, many of whom are TI's competitors, will go to great lengths and even resort to illegal activities to obtain trade secret process technology and manufacturing information from their competitors in order to gain market share and improperly disadvantage their competitors. [Footnote: *See, e.g.*, http://www.eetimes.com/electronics-news/4121034/-b-Analysis--b-plot-thickens-in-TSMC-SMIC-IP-suit.] TI's competitors, especially its overseas competitors who are not subject to the MRR and who already enjoy certain cost and other business advantages, would certainly welcome much of the "inputs to emission equations" data TI would be required to report under the MRR. TI's competitors would use such information to their advantage, resulting in harm to TI's competitive position. As discussed below, "inputs to emission equations" data is highly sensitive that and should never be released publicly.

[…] TI has a long history of developing processes specific to our products to deliver to our customers. Generally, it takes years to develop our processes which are utilized in production facilities for many years until the life cycle of the product is over. A typical product life cycle can range from 3-5 years to as long as 20 years for our catalog products. As an example, decades of development were needed to invent the Digital Light Processor (DLP) used in our television and projector technology. Today the projector technology business continues to be a profitable commercial business for TI. Likewise, TI semiconductor chips are supplied for cellular phones, printers, energy saving devices and almost every portable electronic device on the market. Processes used in the production of these devices are developed specifically to optimize production capacity, yields, and device performance. A typical micro-processing factory will run a single technology node for 5 to 10 years. While an analog factory used to manufacture power management chips, analog to digital converters, and amplifiers may have a technology life cycle of 10-20 years.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Jay M. Dietrich, CEA Program Manager: Climate Stewardship, Senior Technical Staff Member
Commenter Affiliation: IBM
Document Control Number: EPA-HQ-OAR-2010-0964-0025.1
Comment Excerpt Number: 2

Comment: The public availability of at least two categories of inputs to emission equations data elements would cause harm to electronics manufacturing reporters.

The 2nd category of information required under the MRR constitutes highly proprietary and exceptionally valuable "recipe level" information regarding the manner in which semiconductor companies fabricate chips. It is inappropriate for a semiconductor manufacturing company to provide this 2nd category of information to EPA under any level of CBI protection. As described in Section 2, forcing electronics manufacturers to divulge this 2nd category of information, which includes Trade Secret information, would create significant harm, as described in the 2nd section below. The alternative reporting methodologies as proposed in Section 3 would help to mitigate the IP risks and damages that are associated with this 2nd category of information.

In addition to confidential manufacturing capacity and production information, there is a second category of inputs to emission equations data elements which would cause significant harm to electronics manufacturing reporters if made publicly available. This second category includes the recipe-specific information required under Subpart I, much of which constitutes highly valuable trade secrets. Specific sections of concern are 98.96(c)(2); 98.96(f)(1); 98.96(f)(5); 98.96(f)(2); 98.96(k); 98.96(l); 98.96(p) and 98.97(b)(2) Much of this recipe-specific information constitutes highly valuable trade secrets for which even CBI protection would be inadequate to prevent great economic harm to electronics manufacturers, for the reasons detailed below. It would be inappropriate for the EPA to require electronics manufacturers to disclose this information regardless of whether it is to be treated as CBI.

Examples of provisions requiring disclosure of highly proprietary recipe-specific information include Subsections 98.96(k) and (l).

In each of these examples, the key concern is the disclosure of trade secret process recipes for fabricating specific features on semiconductor devices. The electronics manufacturing industry is a highly dynamic and competitive industry within which an individual company's success is dependent upon its ability to deliver unique semiconductor processing capability to the market. These trade secret process recipes constitute the essence of a fabricator's unique semiconductor processing capability, often resulting from considerable investment in research and development.

Electronics manufacturers take significant measures to protect such process recipe information as trade secrets. Such information is typically kept only in secure areas of each facility, on

encrypted IT systems, with access granted to only those employees who have a demonstrated need to know.

Electronics manufacturers heavily rely on patent protection to protect many important innovations [Footnote: See e.g., top 50 US patentees for 2010 listed at http://www.ificlaims.com/news/top-patents.html]; however, in the area of process recipes these same companies have typically chosen to protect this highly valuable intellectual property as trade secrets rather than through patenting with good reason. Under the United States Patent Law, patent specifications must disclose details about the preferred embodiment of the invention, including specific process details in the case of such process patents. Thus, by definition patents covering these process recipes would teach competitors in the U.S. and overseas how to implement them. However, the process recipes used to fabricate a particular device typically are not discoverable by examining the finished product. Therefore, a patent covering a process recipe would reveal to global competitors details of the best way to implement a process, but would be very difficult to enforce against those same competitors who adopted such processes. Moreover, since the semiconductor industry is well known to be an industry in which competitors regularly engage in broad patent cross licensing of their semiconductor patent portfolios, the decision to patent such recipes effectively means that many or most competitors will become licensed to the processes.

Forcing electronics manufacturers to divulge existing trade secret process recipes would result in the loss of any intellectual property protection for those recipes, because such processes already in use would no longer be eligible for patent protection. For new process recipes developed in the future, the EPA's proposed reporting rules would force electronics manufacturers to change their protection strategy and seek less effective patent protection for such process recipes.

Moreover, IBM has worked with development partners under the mutual presumption of secrecy with respect to etch recipes, film recipes and unique features. If IBM is forced to disclose these, both IBM and its development partners will loose [sic] their competitive advantages. This will significantly erode the commercial basis for partnerships with U.S.-based semiconductor companies and cause real economic harm.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 13

Comment: The data elements in each subpart that are considered sensitive and could cause harm are too numerous to list. Some of the specific data elements that EPA proposed to treat as

non-confidential "emissions related" information in its December 27, 2010 Notice of Proposed Rulemaking[16] include data on production and throughput such as "anode consumption" – 98.66(e)(1); "amount of each fluorinated GHG consumed for each recipe – 98.96(k); and "mass of spent liquor solids combusted" – 98.276(c). Some of the specific data elements for throughput include "adipic acid production" - 98.56(b) and (c), and annual production of pulp and;or paper products produced" § §98.276(k), and "nitric acid production" - 98.226(c), (d), and (e). Other examples of the sensitive information for a single manufacturing source category (Subpart E for Adipic Acid Manufacturing) are shown in Attachment 1.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[17]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0924-0043.1
Comment Excerpt Number: 5

Comment: In combination with emission factors, these data can be used to calculate gas usage on each tool and to specify the recipe details for a specific process, which is key trade secret information. Recipes on tools are not best known methods (BKMs) from the original equipment manufacturer. Rather, processes are specially developed and modified by companies to provide improved process performance across wafer uniformity, particle performance, cost of ownership, etc. These metrics drive yield, pricing, cost, and are key trade secret information that goes to the heart of a company's competitive position and provides it with a distinct competitive advantage in the marketplace. Allowing competitors access to this CBI would likely harm the company's competitive position because competitors could improve production yields to better compete with the company, and as a result, its competitive position would suffer. This would likely substantially harm the company's competitive position because the specific gas ratios used in a process are modified from the Original Equipment Manufacturer's (OEM) Best Know Method (BKM) to improve defectivity, process yield, and operational costs. If a competitor could discern specific gas ratios they could modify their process to match the company's, ultimately improving process performance without any development expense and no delay.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

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[16] EPA notes that our proposed determination that inputs to equations are emissions data was proposed in the July 7, 2010 CBI proposal, not in the December 27, 2010 deferral proposal.
[17] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[18]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0927-0131.1
Comment Excerpt Number: 3

Comment: Section 98.93 sets out 9 semiconductor manufacturing process categories and sub-categories. The Re-Proposal would require annual reporting of both usage and mass emissions information for each of these categories and sub-categories on an individual gas-by-gas basis, as well as for a 10th "N2O other" category.

Information about which gases a facility uses in which processes and in what amounts would reveal competitively valuable, trade secret information. Indeed, such details of GHG usage and emissions by process would provide those familiar with our industry specific knowledge of proprietary device designs and manufacturing processes, and also effectively may reveal customer sensitive product information based on manufacturing loadings. Annual production levels and/or facility capacities also could be used by competitors to characterize manufacturing efficiencies and to influence prospective customer decisions.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: D. Mark Durcan, President and Chief Operating Officer
Commenter Affiliation: Micron Technology, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0026.1
Comment Excerpt Number: 1

Comment: Micron also maintains its market position and derives independent economic value from certain information not being known to or readily ascertainable by the competition, including but not limited to, chemical identity and amounts, process recipes, process configuration, and production in terms of substrate surface area. […]

Reverse engineering is an acceptable and lawful practice. In the semiconductor industry, reverse engineering involves starting with a known product and working backwards to discover the process by which it was developed and manufactured. People v. Gopal, 171 Cal. App. 3d 524, 533, (1985) (citing Kewanee Oil v. Bicron, supra, criminal conviction of misappropriation of

[18] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

trade secrets concerning semiconductors affirmed). In the context of the semiconductor industry, it involves an arduous and expensive process, including the purchase of several computer chips of a competitor, cutting cross-sections of chips and analyzing elemental materials through sophisticated atomic-level analytical techniques, stripping layers, photographing the circuitry of each layer through a scanning electron microscope, dissecting the chip to discover the layout design, constructing an electrical schematic of the circuitry, and then drawing inferences about the technical process used to make the device. Id.

The information that EPA is gathering "Data reporting requirements" under 40 CFR 98.96(a) and (c)-(o), and potentially disclosing to the public, is the type of information that would aid a competitor by short circuiting the time effort and money necessary to conduct reverse engineering or to conduct its own research and development. Moreover, many of the specific details EPA has required semiconductor manufacturers to report might not be discerned from reverse engineering. The details at issue here are not for sale or otherwise available to the competition at a price. Keeping the details of valuable processes secret is critical to maintaining a competitive edge. This type of information is trade secret. People v. Gopal, 171 Cal. App. 3d 524, 539 (1985) (information that would substantially reduce reverse engineering time is a trade secret).

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.2
Comment Excerpt Number: 4

Comment: Emission factors used for process utilization and by-product formation rates and the source for each factor for each fluorinated GHG and N2O. § 98.96(d). [The commenter indicates that the citation is 98.96(f) of re-proposal.]

Internally developed and supplier emission factors are CBI because of the cost of development and potential for competitors to use the data to estimate pricing models, business loadings, plant capacities, process technologies, and technical capabilities. This would likely substantially harm TI's competitive position because the specific gas ratios used in a process are modified from the Original Equipment Manufacturer's (OEM) Best Know Method (BKM) to improve defectivity, process yield, and operational costs. If a competitor to TI could discern specific gas ratios, it could modify its process to match TI's, ultimately improving process performance without any development expense and no delay.

By-product formation rates are CBI because a competitor could discern the gas ratios used in the TI-specific recipes from the by-product formation information. With this information, competitors could then adjust their processes to improve process performance for yield, cycle time, and capacity. Such actions by competitors would likely substantially harm TI's competitive position because TI has spent substantial engineering time and money to develop the processes

and recipes that are key to TI's success in the market and market share. TI considers these data to be CBI and protect such information with Memorandums of Agreement (MOAs) with all of our original equipment manufacturers (OEMs).

In the STI process, if gas consumption from this process is reported as an input to an emission equation, then it would be simple for a competitor to derive the number of wafers started in any given location. This information would be likely to harm TI's competitive position because competitors could negotiate lower pricing levels with their customers to attempt to undercut TI's pricing to the same customers. This has happened in the past, where to exclude competitors from a market, a company will steeply reduce its prices to their customers, effectively shutting out any business that cannot meet progressively lower prices.

For example, TI is in the process of developing an edge cleaning process and TI would consider gas usage for its edge cleaning process to be CBI. Making public the gas type and volume used in TI's edge clean process could provide competitors with knowledge of which specific process and tool are used and how to increase semiconductor yield at the edge of wafer. Semiconductor yield at the edge of the wafer is an extremely important production efficiency metric, and semiconductor companies are competing to develop the best technology to produce more semiconductors per wafer. In addition, competitors with such knowledge could identify production-ready [high-yield] edge clean tools to purchase, which could deplete the market of such tools and exclude TI from purchasing such tools, thereby increasing competitor's output and reducing TI's yield per wafer and, in turn, its market share.

Further, overseas semiconductor manufacturing facilities do not have to report their gas usage and TI would never disclose such information publicly and such information is not reasonably obtainable without TI's specific consent and entering into a Non-disclosure Agreement with TI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.1
Comment Excerpt Number: 3

Comment: […] With respect to recipe-specific reporting, TI emphasizes that individual semiconductor process recipes are among the most closely-guarded trade secrets in the semiconductor industry, as consistently stated by TI and SIA in prior comments submitted to EPA8 and, as discussed by SIA in its comments, several courts have acknowledged that semiconductor chip manufacturing processes and design are protectable as trade secrets. [Footnote: See Comments by the Semiconductor Industry Association on U.S. EPA's Proposed Rule: Mandatory Reporting of Greenhouse Gases, EPA Docket ID No. EPA-HQ-OAR-2008-0508-0498.1 (June 9, 2009); see also Comments of the Semiconductor Industry Association on U.S. EPA's Proposed Rule: Mandatory Reporting of Greenhouse Gases; Additional Sources of Fluorinated GHGs, EPA Docket No. EPA-HQ-OAR-2009-0927-0131.1 (June 11, 2010). EPA's

decision in the Final Subpart I to require emission data to be reported on a recipe-specific basis exacerbates the confidentiality concerns previously raised about disclosing emission data by process.]

TI acknowledges that Subpart I does not require the submission of any full semiconductor recipe. However, several data elements considered "inputs to emission equations," such as §§ 98.96(f)(1), 98.96(k), and 98.96(l), require reporting of certain recipe-specific and gas apportioning information would provide enough specific knowledge of proprietary device designs and manufacturing processes to simplify a competitor's reverse engineering process of individual recipes. As SIA states, reverse engineering can be an arduous and expensive process that entails the purchase of a competitor's chips, the cutting of chip cross-sections and the analysis of elemental materials through sophisticated atomic-level analytical techniques, stripping layers, photographing the circuitry of each layer through a scanning electron microscope, dissecting the chip to discover the layout design, constructing an electrical schematic of the circuitry, and then drawing inferences about the technical process used to make the device.

As SIA states, the inputs to emission equations data required to be reported by the Subpart I sections referenced above is the type of information that could aid a competitor by reducing the time, effort, and money necessary to conduct reverse engineering or to conduct its own research and development. Moreover, these specific details would not be readily discernable, even from sophisticated reverse engineering. And, the inputs information required to be reported is not for sale or otherwise available to the competition at any price. Keeping the details of valuable processes secret is critical to maintaining a competitive edge. This type of information clearly qualifies as trade secret. [Footnote: People v. Gopal, 171 Cal. App. 3d 524, 539 (1985) (information that would substantially reduce reverse engineering time is a trade secret).]

As SIA states, the level of intellectual property inherent in the foregoing information is significant. Essentially, SIA understands these reporting requirements to require that a company reveal the quantity of gas being used (1) for each type of "film" being etched (e.g., oxide, nitride) and (2) for each "feature" within that film (e.g., gate, deep trench). As result, a company would be revealing information about its process and particular recipes used in that process which it, in many cases, has never shared publicly and which it regards as intellectual property. For example, a company would need, under these information requirements, to reveal that in its 300 millimeter fabrication process, for a specific group of "similar" recipes it uses X kg of SF6 and Y kg of CHF3 to etch silicon nitride layers in gate stack in year 2010.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.2
Comment Excerpt Number: 5

Comment: For each fluorinated GHG and N2O, annual gas consumed during the reporting year and facility-wide gas-specific heel-factors used. § 98.96(f). [The commenter indicates that the citation is 98.96(g) of re-proposal.]Similar to the examples stated above, competitors can use the usage of specific chemicals to estimate pricing models, business loadings, plant capacities, process technologies, and technical capabilities.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.2
Comment Excerpt Number: 6

Comment: The apportioning factors for each process category (i.e., fractions of each gas fed into each individual process or process category used to calculate fluorinated GHG and N2O emissions) and a description of the engineering model used for apportioning gas usage per § 98.94(c). If the method used to develop the apportioning factors permits the development of facility-wide consumption estimates that are independent of the estimates calculated in Equation I–10 of subpart I (e.g., that are based on wafer passes for each individual process or process category), report the independent facility-wide consumption estimate for each fluorinated GHG and N2O. § 98.96(g). [The commenter indicates that the citation is 98.96(L) of re-proposal.]

In combination with emission factors, these data can be used to calculate gas usage on each tool and to specify the recipe details for a specific process, which is key trade secret information. Recipes on tools are not best known methods from the original equipment manufacturer. Rather, processes are specially developed and modified by TI to provide improved process performance across wafer uniformity, particle performance, cost of ownership, etc. These metrics drive yield, pricing, cost, and are key trade secret information that goes to the heart of TI's competitive position and provides TI with a distinct competitive advantage in the marketplace. Allowing competitors access to this CBI would likely harm TI's competitive position because competitors could improve production yields to better compete with TI, and as a result, TI's competitive position would suffer. This information is not available to anyone outside of TI without some type of third-party agreement. In limited instances, TI maintains Memoranda of Agreements including non-disclosure provisions and separately negotiated non-disclosure agreements that directly prohibit our suppliers from divulging this information to our competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)

Document Control Number: EPA-HQ-OAR-2010-0964-0018.2
Comment Excerpt Number: 7

Comment: Fraction of each gas fed into each process type that is fed into tools with abatement systems. §98.96(h). [The commenter indicates that the citation is 98.96(n) of re-proposal.]

Why these data are CBI: In combination with emission factors these data can be used to calculate gas usage on each tool and to specify the recipe details for a specific process, which is key trade secret information. Similar to the reasons discussed above, recipes on tools are not BKMs from the original equipment manufacturer. Rather, processes are specially developed and modified by TI to provide improved process performance across wafer uniformity, particle performance, cost of ownership, etc. These metrics drive yield, pricing, cost, and are key trade secret information that goes to the heart of TI's competitive position and provides TI with a distinct competitive advantage in the marketplace. Competitors can use such data to estimate pricing models, business loadings, plant capacities, process technologies, and technical capabilities. Again, TI maintains Memoranda of Agreements that directly prohibit our suppliers from divulging this information to our competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Jay Hawkins, Vice President of Operations[19]
Commenter Affiliation: Micron Technology, Inc (Micron)
Document Control Number: EPA-HQ-OAR-2008-0508-0437.1
Comment Excerpt Number: 1

Comment: While we acknowledge EPA's desire to be able to verify the emissions reports, we are concerned about the requirement to report detailed confidential process-specific information. E.g., §98.96(a), (b) and (f). Since this information is ultimately derived from manufacturing recipes, it is considered highly sensitive to our competitive position and is kept confidential.[…]

EPA has also proposed to require reporting of facility-level production in terms of substrate surface area (e.g., silicon, PV-cell, LCD)". §98.96(c). This data is not necessary for determining annual mass emissions and should not be required to be reported. Micron considers this to be competitively sensitive information that is kept confidential. If there is a need for the agency to determine how emissions change with production or whether a facility is above the production reporting threshold, this data can be made available for inspection at the facility.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the

[19] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Dale Eldridge, Director of Facilities[20]
Commenter Affiliation: Micron Technology, Inc (Micron)
Document Control Number: EPA-HQ-OAR-2009-0927-0110.1
Comment Excerpt Number: 1

Comment: While Micron acknowledges EPA's desire to be able to verify emissions reports, we are concerned about the requirement to report detailed confidential process-specific information (e.g. §98.96(a)). Since this information is ultimately derived from manufacturing recipes, it is considered highly sensitive to our competitive position and is therefore kept confidential. […]

EPA has proposed to require reporting of facility level "[p]roduction in terms of substrate surface area..." §98.96(c). This data is also unnecessary for determining annual mass emissions, is not a variable in any actual emissions equation, and should not be required to be reported. Micron considers this to be competitively sensitive information that is kept confidential. If a need exists for the agency to determine how emissions change with production or whether a facility is above the production reporting threshold, this data can be made available for inspection at the facility.

Micron objects to the requirement to report emissions and gas usage of each F-GHG and N20 by process category, and to the requirement to report annual production levels [assumed citation 98.96(g)]. We feel that providing EPA with total emissions on a CO_2e basis and providing the remaining inputs, such as methods of emissions calculations, emission factors used, etc., should provide sufficient data. Gas usage, emissions data, and substrate area are considered CBI. This information would provide sensitive data to others in the semiconductor industry and damage Micron's competitive edge.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)

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[20] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

Document Control Number: EPA-HQ-OAR-2010-0964-0024.1
Comment Excerpt Number: 2

Comment: On December 1, 2010, EPA published the Final Subpart I, which includes, among others, a provision requiring larger manufacturing facilities to quantify

> "each fluorinated GHG emitted from each ***individual recipe*** (including those in a set of ***similar recipes***), or process sub-type" for all plasma etch processes [40 C.F.R. § 98.96(c)(2). (Hereinafter, all references to sections shall refer to Title 40 of the Code of Federal Regulations unless otherwise noted)] based on "measurements" of "recipe-specific utilization and by-product formation rates" [§ 98.94(d)].

As the highlighted text indicates, this requirement centers around measuring fluorinated GHG or "F-gas" emissions on an individual recipe-by-individual recipe basis for all plasma etch processes, with the ability to utilize a single set of measurements for all "similar recipes." Such a compliance regime based on individual recipe-by-individual recipe emissions measurement goes to the heart of the semiconductor fabrication process, and as a result, would, among other issues, threaten to compromise the millions (and in some cases billions) of dollars worth of intellectual property that comprises a company's recipe portfolio In particular, individual etch recipes are among the most closely-guarded trade secrets in the semiconductor industry, […] and several courts have acknowledged that semiconductor chip manufacturing processes and design are protectable as trade secrets [*See e.g.*, *Taiwan Semiconductor Mfg. Co. v. Semiconductor Mfg. Int'l Corp.*, 2004 U.S. Dist. LEXIS 29717 (N.D. Cal. Apr. 21, 2004)(court acknowledged that semiconductor manufacturing process could be trade secret, but determined it had no jurisdiction over non-U.S. plaintiff's claim of misappropriation); *Uniram Tech., Inc. v. Taiwan Semiconductor Mfg. Co.*, 2007 U.S. Dist. LEXIS 67862 (N.D. Cal. Sept. 5, 2007) (court ruled on motion and allowed plaintiff to proceed with claim that defendant misappropriated trade secrets by divulging semiconductor manufacturing process details to third parties); *Silicon Image, Inc. v. Analogix Semiconductor, Inc.,* 2007 U.S. Dist. LEXIS 96073 (N.D. Cal. Dec. 20, 2007) (court recognized silicon chip register design as potentially subject to trade secret protection); *Silicon Image, Inc. v. Analogix Semiconductor, Inc.*, 2007 U.S. Dist. LEXIS 96073 (N.D. Cal. Dec. 20, 2007) (court recognized silicon chip register design as potentially subject to trade secret protection); *Metron Tech. Distrib. Corp. v. Discreet Indus. Corp.*, 189 Fed. Appx. 3 (2d Cir. N.Y. 2006)(court granted injunction preventing defendant from producing replacement parts for semiconductor manufacturing tool because tool design was a trade secret that defendant had misappropriated)]. To remain globally competitive, a semiconductor company must innovate on a constant basis to bring new and faster products to market. Accordingly, semiconductor manufacturers invest considerable time and money in research and development to perfect the recipes used in the fabrication process. Each company's recipe portfolio has an inherent intellectual property value in the hundreds of millions to billions of dollars.

Final Subpart I, although it does not mandate the submission of any full recipe, does require reporting of certain etch recipe-specific information. This information could provide enough specific knowledge of proprietary device designs and manufacturing processes to allow for reverse engineering of individual recipes and otherwise would compromise the trade secrets within a company's recipe portfolio [In the semiconductor industry, reverse engineering involves starting with a known product and working backwards to discover the process by which it was

developed and manufactured. *People v. Gopal*, 171 Cal. App. 3d 524, 533, (1985) (citing *Kewanee Oil v. Bicron*, *supra*, criminal conviction of misappropriation of trade secrets concerning semiconductors affirmed). It can be an arduous and expensive process that entails the purchase of a competitor's chips, the cutting of chip cross-sections and the analysis of elemental materials through sophisticated atomic-level analytical techniques, stripping layers, photographing the circuitry of each layer through a scanning electron microscope, dissecting the chip to discover the layout design, constructing an electrical schematic of the circuitry, and then drawing inferences about the technical process used to make the device. *Id*. The information implicated by the Final Subpart I reporting requirements (*e.g*., chemical identities, amounts, emitted, apportionment by process type, facility-wide consumption, annual gas consumption) is the type of information that could aid a competitor by short circuiting the time, effort, and money necessary to conduct reverse engineering or to conduct its own research and development. Moreover, these specific details would not necessarily be discernable, even from sophisticated reverse engineering. And, the details at issue here are not for sale or otherwise available to the competition at a price. Keeping the details of valuable processes secret is critical to maintaining a competitive edge. This type of information clearly qualifies as trade secret. *People v. Gopal,* 171 Cal. App. 3d 524, 539 (1985) (information that would substantially reduce reverse engineering time is a trade secret)].

In particular, Section 98.96 of the Final Subpart I requires facilities to report the following information:

- Type of each gas used for each set of similar recipes; [§ 98.96(c)(2)]
- Recipe-specific utilization and byproduct rates (*i.e.*, emission factors);[§ 98.96(f)(1)].
- The film or substrate that was etched or cleaned and the feature type that was etched for each recipe in Part 98.96(f)(1); [§ 98.96(f)(2)]
- Quantity of each gas used for each set of "similar" recipes, to be reported on an annualized basis; [§ 98.96(k)]
- All apportioning factors used to apportion F-gas and N2O consumption; [§ 98.96(l)] and
- Identification of the quantifiable metric used in a facility-specific engineering model to apportion gas consumption.[§ 98.96(m)(i)]

The level of intellectual property inherent in the foregoing information is significant. Essentially, SIA understands these reporting requirements to require that a company reveal the quantity of gas being used (1) for each type of "film" being etched (*e.g*., oxide, nitride) and (2) for each "feature" within that film (*e.g*., gate, deep trench) [As defined in Section 3.1 of EPA's Technical Support Document, a "film" is the material being etched, *e.g.*, oxide, nitride, etc., while the term "feature" refers to the structure within which the film occurs, *e.g*., gate, deep trench, etc. *See* U.S. Environmental Protection Agency Office of Air and Radiation, Technical Support Document for Process Emissions from Electronics Manufacture (*e.g.*, Micro-Electro-Mechanical Systems, Liquid Crystal Displays, Photovoltaics, and Semiconductors): Proposed Rule for Mandatory Reporting of Greenhouse Gases, Revised, November 2010 ("Technical Support Document")]. As result, to comply with Subpart I, a company would be revealing information about its process and particular recipes used in that process which it, in many cases, has never shared publicly and which it regards as intellectual property. For example, under these

information requirements, a company would need to reveal that in its 300 millimeter fabrication process, for a specific group of "similar" recipes it uses "X" kg of SF6 and "Y" kg of CHF3 to etch silicon nitride layers in gate stack in year 2010.

In addition, Final Subpart I would require each facility to maintain recipe-specific records in order to document compliance with the requirements of the Rule and make such records available to EPA. In particular, Section 98.97(b) of the Rule requires that

the following records be kept by any facility that estimates emissions using recipe-specific emission factors (*i.e.*, "large" facilities) ["Large" facilities are those with an annual manufacturing capacity of more than 10,500 m2 of substrate (See Section 98.93(a)(2)]:

(1) "Complete documentation and final report for measurements for recipe specific [emission factors]"; and

(2) "Documentation that recipe-specific [emission factors] developed for your facility are measured for recipes that are similar to those used at your facility, as defined in § 98.98.

The documentation must include, at a minimum, recorded to the appropriate number of significant figures, reactor pressure, flow rates, chemical composition, applied RF power, direct current (DC) bias, temperature, flow stabilization time, and duration." [§ 98.97(b)]

Of particular concern to SIA and its members is that these records could become subject to inquiries as to their content and sufficiency not only by EPA in an enforcement context, but also by local residents and other private citizens in future permitting and related contexts (*e.g.*, a Freedom of Information Act Request or through discovery in a citizen suit filed under the Clean Air Act) [As of July 1, 2011, many semiconductor facilities will be subject to the CAA's Prevention of Significant Deterioration permitting under the GHG "Tailoring Rule." *See* Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Final Rule, 75 Fed. Reg. 31,514 (June 3, 2010)]. Etch recipes are considered trade secrets and, as such, are tightly controlled. Most semiconductor companies – even very prolific patentees – opt to protect their recipes as trade secrets, rather than through patents, which require disclosure of the recipe. If these records are made public, they could lose their status as trade secrets, allowing competitors to reverse engineer recipes, thereby compromising the value of information worth up to several billion dollars to each company. Moreover, if EPA were to persist in its position articulated in the Proposed CBI Determinations, much of the information underlying the Final Subpart I's emissions calculations, [*See* EPA, "Data category assignments for reporting elements to be reported under 40 C.F.R. part 98 and its amendments," pp. 18-21, *available at* http://www.epa.gov/climatechange/emissions/downloads10/CBI_Data-Category.pdf)] including the recipe-specific emissions factors, would constitute "emissions data," thereby making recipe-specific information vulnerable to public disclosure even more broadly outside the enforcement and permitting contexts.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[21]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2008-0508-0498.1
Comment Excerpt Number: 6

Comment: […]The fraction of each gas fed into each process type […] could potentially be used (in particular with other gas usage information) to discern proprietary information about manufacturing processes and recipes.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[22]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0924-0043.1
Comment Excerpt Number: 4

Comment: § 98.96(f) – Annual Consumption of Each GHG Section 98.96(f) of the Reporting Rule, if finalized, will require submission of the following information: "for each fluorinated GHG and N2O, annual gas consumed during the reporting year." This information, if made public, would harm semiconductor manufacturers' competitive position. The price that semiconductor manufacturers pay their suppliers for the gases they use depends on many factors, including the supplier's perception of a company's overall gas needs, and the needs of competitors. To maintain leverage in negotiations with suppliers, semiconductor manufacturers keep confidential their total annual gas usage and purchase information. As a result, suppliers do not know the total amount of a particular gas that a semiconductor manufacturer uses in a year; they know only the amount the company purchases from the particular supplier. If such annual gas usage data were made public, gas suppliers could use this information to dictate prices in negotiations, causing semiconductor manufacturers to lose substantial negotiating leverage, thus harming their competitive position.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data

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[21] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.
[22] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[23]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2008-0508-0498.1
Comment Excerpt Number: 7

Comment: The description and number of abatement devices used by each facility […] could reveal confidential information about the types and number of different manufacturing processes that occur in each facility.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[24]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0924-0043.1
Comment Excerpt Number: 6

Comment: § 98.96(g) – Apportionment Factor for Each GHG Combined with Annual Consumption of Each GHG (§ 98.96(f))Data Elements EPA has Classified as "Non- CBI," which Are in Fact Highly Confidential CBI

Section 98.96(g) of the Reporting Rule, if finalized, will require the submission of the following information: "The apportioning factors for each process category (i.e., fractions of each gas fed into each individual process or process category used to calculate fluorinated GHG and N2O emissions)" for nine separate process categories – four etch categories, three chamber clean categories, and two wafer clean categories. The combination of gas-specific consumption data required under § 98.96(f) with gas-specific apportionment to processes categories is highly guarded information because, to a person with sufficient knowledge of semiconductor fabrication plant (or "fab") operations, it can be used to deduce the production rate of different technologies (i.e., wafer types) being manufactured at the fab.

For example, gas-specific apportionment data coupled with consumption data can be combined by a knowledgeable person to deduce the specific CVD chamber tool set (i.e., brands/models) that a company is running in a fab. CVD chambers have relatively standard and well-known chamber clean recipes, such that one with knowledge of those tools' operation can determine production levels based on their gas consumption rates. Because specific CVD tools are

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[23] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.
[24] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

associated with particular technologies, one could then determine production levels of those technologies. Similarly, for etch tools, because § 98.93 requires submission of gas apportionment data, a knowledgeable person could analyze the ratios of gases used in each process category and deduce both the types and production volumes of different wafer films and metal layers that a fab is producing and specific etch process the fab is running. Further, if the etch category is split into four subcategories, as currently required in the GHG Reporting Rule, the information becomes even more potentially sensitive. Fab production levels of various technologies is obviously highly sensitive information that a semiconductor manufacturer would never reveal to a customer, let alone competitors, as it would cause substantial harm to the company's competitive position. EPA has acknowledged as much in its exemption of "production in terms of substrate surface area" (§ 98.96(c)) from disclosure as CBI.

In a similar fashion, tool manufacturers and customers also could deduce the tool set being run by a fab, which would put the semiconductor manufacturers in a poor negotiating position with both groups. Semiconductor manufacturers do not share tool set information with tool manufacturers because they can use this information to influence pricing and availability in contract negotiations for the purchase of new tools. Likewise, customers generally do not know a semiconductor manufacturer's production capacity when negotiating purchase agreements. Knowledge of the semiconductor manufacturer's tool set would give their customers a reasonable estimate of its production capacity, which would harm the semiconductor manufacturers' position in negotiations with customers.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[25]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0924-0043.1
Comment Excerpt Number: 7

Comment: § 98.96(h) – Fraction of each gas fed into each process type that is fed into tools with abatement systems.

In combination with emission factors these data can be used to calculate gas usage on each tool and to specify the recipe details for a specific process, which is key trade secret information. Recipes on tools are not BKMs from the original equipment manufacturer. Rather, processes are specially developed and modified by companies to provide improved process performance across

[25] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

wafer uniformity, particle performance, cost of ownership, etc. These metrics drive yield, pricing, cost, and are key trade secret information that goes to the heart of a company's competitive position and provides the company with a distinct competitive advantage in the marketplace.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[26]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0927-0131.1
Comment Excerpt Number: 7

Comment: The fractions of each gas fed into individual process or process category […] is highly-proprietary information, as it is a key parameter of a company's process "recipes" such that disclosure of this information could cause substantial competitive harm. Similarly a description of the engineering model used to apportion the gas usage, to the extent it can be linked to gas fractions would be proprietary. Any method used to develop a facility-wide apportioning factor also could be potentially linked to individual process gas use, so would also be highly proprietary.

§ 98.96(h): Fraction of each gas fed into each process type with abatement devices.

[…] the fraction of each gas fed into each process type […] could potentially be used (in particular with other gas usage information) to discern proprietary information about manufacturing processes and recipes.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

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[26] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[27]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0924-0043.1
Comment Excerpt Number: 8

Comment: In addition to the data that EPA has classified as "emission data," certain data elements that EPA has determined to be "not-CBI" is in fact sensitive CBI that is highly-guarded within the industry.

§ 98.96(i) – Description of Abatement Systems

For example, § 98.96(i), if finalized, will require the submission of a "Description of all abatement systems through which fluorinated GHGs or N2O flow at your facility, including the number of devices of each manufacturer [and] model numbers. . . ." Abatement devices are typically linked to a particular type of manufacturing tool, such that the number and models of such devices can, when combined with certain of the other information required to be submitted under Subpart I, such as process and gas-specific usage data, could be used to discern sensitive information about manufacturing processes and production rates. In addition, similar to the situation with divulging information on the tool set a fab is running, providing abatement system manufacturers with detailed information on the number and types of abatement systems running in a fab would put the companies in a poor bargaining position.

§ 98.96(j)(2) – Abatement System Uptime

The examples above describe "direct" harm to a company's competitive position that can occur when CBI submitted under Subpart I is released to a competitor. As explained below, in addition to such direct competitive harm, many semiconductor manufacturers have unique business arrangements with their customers such that customer relationships can be harmed by the release of certain information, such as Abatement System Uptime data, that would initially not appear to be particularly sensitive.

Due to the critical applications in which many of its products are used, the semiconductor industry is intensely focused on quality and "zero defectivity" in its products. Many customers' businesses, such as the automotive industry, are so dependent on our products working flawlessly, that our contracts with customers often allow them to frequently audit and inspect our manufacturing facilities to ensure that operations and equipment maintenance are working "perfectly." Any perceived imperfections in our operations -- even something as seemingly trivial as an unaccounted-for tank of gas -- can be interpreted as a more systemic "problem" that could affect product quality. As an example, the required submission under § 98.96(j)(2) of "uptime" data for each abatement system installed at a fab could, if less than 100%, be misinterpreted by customers as indicating problems with manufacturing. Any such misinterpretations could disrupt our customer relationships and harm our competitive position in negotiations with those customers.

[27] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[28]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0927-0131.1
Comment Excerpt Number: 8

Comment: § 98.96(i): Description of all abatement systems through which fluorinated GHGs or N2O flow at your facility, including the number of devices of each manufacturer, model numbers, manufacturers guaranteed destruction or removal efficiencies, if any, and record of destruction or removal efficiency measurements over its in-use life. The inventory of abatement systems shall also include a description of the associated tools and/or processes for which these systems treat exhaust.

The description and number of abatement devices used by each facility and their destruction or removal efficiencies and records of such [and…] a description of associated tools and processes [...] could reveal confidential information about the types and number of different manufacturing processes that occur in each facility.

§ 98.96(j): For each abatement system through which fluorinated GHGs or N2O flow at your facility, for which you are reporting controlled emissions, the following:

(1) Certification that each abatement system used at your facility is installed, maintained, and operated in accordance with manufacturers' specifications.

(2) The uptime and the calculations to determine uptime for that reporting year.

(3) The default destruction or removal efficiency value or properly measured destruction or removal efficiencies for each abatement system used in that reporting year to reflect controlled emissions.

(4) Where the default destruction or removal efficiency value is used to report controlled emissions, certification that the abatement systems for which controlled emissions are being reported are specifically designed for fluorinated GHG and N2O abatement.

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[28] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0026.

(5) Where properly measured destruction or removal efficiencies or class averages of destruction or removal efficiencies are used to report controlled emissions, the following:

(i) A description of the class including the abatement system manufacturer and model number, and the fluorinated GHG and N2O in the process effluent stream;

(ii) The total number of systems in that class for the reporting year.

(iii) The total number of systems for which destruction or removal efficiency was measured in that class for the reporting year.

(iv) A description of the calculation used to determine the class average, including all inputs of the calculation.

(vi) A description of method of randomly selecting class members for testing.

[…] Much of the information [in § 98.96(j)] could be used to discern sensitive proprietary information about the types and number manufacturing processes and production capacities and output at a facility:

§ (1) – certification of each abatement system could be used to determine the number of different kinds of systems in use, which could potentially be linked to specific tools and processes;

§ (2) – DRE uptime could be linked to production;

§ (3) – default DRE values for systems could be used to determine the number of different kinds of systems in use, which could potentially be linked to specific tools and processes;

§ (4): certification of systems where default DRE is used could be used to determine the number of different kinds of systems in use, which could potentially be linked to specific tools and processes;

§ (5)(i) – a description of the class and model number of the abatement systems, could be used to determine the number of different kinds of systems in use, which could potentially be linked to specific tools and processes;

§ 5(ii) and (iii) – the total number of systems in a class for a year and total number of systems measured in a year, which although less direct than an accounting of actual systems in use, could be used to determine the number of different kinds of systems in use, which could potentially be linked to specific tools and processes;

§ 5(vi) – a description of the method used to randomly select class members, which to the extent it includes information about the number of devices in each class could potentially be linked to specific tools and processes. (NB: there is no subsection 5(v).)[…]

§ 98.96(k): For heat transfer fluid emissions, inputs in the mass-balance Equation.

[…] In addition, certain of the inputs to the mass balance equation [for F-HTFs], such as the nameplate capacity of equipment that contains F-HTF is sensitive CBI that could reveal information about specific production processes and capacities. […]

§ 98.96(l): Example calculations for F-GHG, N2O, and heat transfer fluid emissions.

As explained above, providing the input variables necessary to perform example calculations for F-GHG, N2O and F-HTF emissions would reveal certain CBI […]

Response: Since the commenter submitted this comment on the July 7, 2010 proposed CBI rule, EPA has made some substantive changes to the data elements that are required to be reported and the rule citations for the data elements mentioned in this comment. See 75 FR 74774 (December 1, 2010). In today's final deferral action, EPA is deferring all data elements contained in the final Subpart I (as amended) that we have categorized as inputs to emission equations. Data elements that are not inputs to emission equations are not addressed in the deferral action. EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.1
Comment Excerpt Number: 4

Comment: EPA seeks information regarding which, if any, data that are inputs to emission equations are already publicly available, discernable from other publicly available data, or otherwise not sensitive for any reporter.

TI is not aware of any information that would be required to be reported under the "inputs to emission equations" data category that is currently, or has ever been, publicly available. Similarly, TI has never considered such information to be non-sensitive, and TI cannot envision changing its position. Inputs to emissions equations required to be reported by Subpart I are discernable from publicly available data, such as information available on TI's 10K reports and corporate citizenship report.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 35

Comment: For Electronics Manufacturing, EPA has proposed to defer reporting of estimated input fluorinated GHGs and by-product fluorinated GHGs in the etching and cleaning processes,

which would allow for estimation of fluorinated GHG emissions from these processes. 40 C.F.R. Part 98.96(f)(1), (g)-(l), (n), (o). Absent any evidence that disclosure of these data elements could cause covered facilities competitive harm, EPA can have no rational justification for delaying the reporting date.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: James Brooks, Director, Bureau of Air Quality
Commenter Affiliation: Maine Department of Environmental Protection (DEP)
Document Control Number: EPA-HQ-OAR-2010-0964-0021.1
Comment Excerpt Number: 1

Comment: Although the Maine DEP believes that activity and throughput data is a necessary element of emission reports, we do agree with arguments made by electronics manufacturers that some of the information required by EPA in 40 CFR 98, Table A-6 is not necessary for quality assurance of emission estimates and should not be reported or made publicly available. Subpart I – Electronics Manufacturing requires extremely detailed information that is not currently provided by electronics manufacturing facilities in Maine to the Maine DEP. The Maine DEP supports the elimination of reporting diameter of semiconductor wafers (98.96(b)), recipe-specific fluorinated GHG utilization (98.96(f)), amount of each fluorinated GHG consumed for each recipe (98.96(k)), and other recipe-specific information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: D. Mark Durcan, President and Chief Operating Officer
Commenter Affiliation: Micron Technology, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0026.1
Comment Excerpt Number: 2

Comment: So far as we know, none of the "Data reporting requirements" in 40 CFR 98.96(a) and (c)-(o) is publically available or discernable from other publically available data.

Response: For 96(o), please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. The other data elements mentioned in this comment are not used as inputs to the emission equations and are therefore not included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

10.0 SUBPART L

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 7

Comment: Some of the facilities subject to Subpart L are specialized materials manufacturers, manufacturing specific chemicals that are produced by no other facility in the world. In one case, a company has over $100 million dollars and five decades in research and development to develop the unique processes at its facilities. These processes have customized configurations and customized process characteristics. There is no patent for process-related information. The facilities rely on trade secret protection to maintain the value of their investment in technology. They are very careful to take measures to preserve the secrecy of this information, including: (a) requesting that the information be held confidential in this and other submissions to federal, state and local agencies, (b) keeping the information in secure buildings, protected by security guards at entrances, to which non-company personnel do not have access (unless given special security clearance or escort), (c) entering confidentiality agreements with their employees, and (d) entering confidentiality agreements with their consultants and contractors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 17

Comment: There are specific data elements listed by EPA under Rule 98, Subpart L, that Air Products considers CBI. The following general comments and considerations regarding CBI apply to all inputs to emissions equations under 98.126(b) and (c), and are also applicable to other data elements in this subpart.

Information such as equipment specifications, raw material volumes and unit operating parameters could present a detailed picture of a site's vulnerability to criminal or terroristic attacks. This information may be required to be reported under other Federal laws or regulations, but is kept under strict confidentiality laws to maintain the security of the site.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 18

Comment: There are specific data elements listed by EPA under Rule 98, Subpart L, that Air Products considers CBI. The following general comments and considerations regarding CBI apply to all inputs to emissions equations under 98.126(b) and (c), and are also applicable to other data elements in this subpart.

USEPA understands that there is no patent for process-related information. Facilities rely on trade secret protection to maintain the value of their investment in technology. We are very careful to take measures to preserve the secrecy of this information, including (a) requesting that the information be held confidential in all submissions to federal, state and local agencies, (b) keeping the information in secure buildings, protected by security guards at entrances, to which non-company personnel do not have free access, and (c) entering confidentiality agreements with our employees, vendors, consultants and contractors. If the inputs to emission calculations and other specific process-related information described in more detail below are made public, this would reveal highly confidential aspects of process configurations and characteristics for our NF3 manufacturing facility. Competitors could duplicate our processes and create the same or competitive products without having to make multi-million R&D investments, thereby giving them a substantial competitive advantage. Without having to make that significant investment in capital and time, our off-shore competitors could undercut prices and gain market share resulting in our reduced sales and loss of jobs here in the U.S.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 21

Comment: ***Reporting for the Mass Balance Approach***

Rule 98.126(b)(2): In some instances, the basic chemical equations for a manufacturing process may have been placed in the public sector, and in other instances they have not. It is inappropriate to assume that CBI concerns are consistent across different industries or throughout a single industry. Where process stoichiometry is understood, the various inputs to emission calculation are often very confidential information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 22

Comment: Rule 98.126(b)(3) and (6) and 98.126(b)(3) and (4) of the original April 12, 2010 reproposed rule: This information is confidential business information. Because the balanced chemical equation is often public information, the mass of each reactant fed into the production process would provide competitors information on specific production quantities and process yields, and is therefore not available in the public domain. Mass and composition of process inputs and outputs could also be used to determine the presence and elemental composition of proprietary additives. It is CBI whether considered alone, or in combination with the mass of product produced (98.126(b)(7)), the mass of product emitted (98.126(b)(4)), or the mass of each byproduct emitted (98.126(b)(5)). All of this information would provide competitors with a detailed understanding of the manufacturing process at a particular Subpart L facility.

Rule 98.126(b)(7): The mass and chemical formula of each fluorine-containing product produced by the process is confidential information. EPA has recognized this in its determination under 98.126(a)(6) and in Subpart OO where production volume information is being treated universally as CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 8

Comment: If the inputs to emission calculations and other specific process-related information described in more detail below are made public, this would reveal highly confidential aspects of process configurations and characteristics for these Subpart L facilities. It could allow competitors to duplicate the process and create the products without having to make the multi-million research and development investments, thus giving them a substantial competitive advantage. Because they have not had to incur the R&D costs, it could allow competitors to out-compete these facilities, causing loss of sales, business, and potentially loss of jobs.
Based on EPA's CBI determinations and the methods that are used to determine fluorinated

greenhouse gas (F-GHG) emissions, the information being reported in §98.126 would provide a detailed roadmap of an F-GHG manufacturing facility. In addition, ACC member company concerns go well beyond those reporting elements that are considered "inputs to emission equations." Unlike many other source categories where reported emissions will be limited to carbon dioxide alone, Subpart L data will be chemical specific. Such emissions information, when coupled with process descriptions, will provide detailed information that has not previously been placed in the public domain. This information would include the production quantities of products (which are considered CBI under Subpart OO) and all isolated intermediates. If the methods used to determine emissions are based on the mass balance, emission factor or emission calculation factor approaches, EPA is asking facilities to report this information as well as data on product chemical compositions (also required under Subpart OO but there treated as CBI), process yields, and raw materials usage. Competitors may well be able to use the information to reverse engineer products and to ascertain capacity and capacity utilization, which are important to assessing competitive positions and pricing.
Because EPA has requested reporting of F-GHGs by the specific F-GHG rather than by the general CO2 equivalents, this has the potential to make each type of input to emission equations listed below CBI. Some plants subject to Subpart L manufacture specific chemicals that are not produced by any other plant in the world, much less the United States. Accordingly, requiring the reporting of specific F-GHGs creates the very real possibility that a specific F-GHG will reveal a specific chemical produced by that plant and will give information allowing a competitor to extrapolate the quantity of that chemical produced by that plant. The ACC has commented previously that EPA should not require the reporting of specific F-GHGs but instead should require the reporting of CO2e so as to avoid this initial confidentiality concern. Nevertheless, because the current proposed reporting rule specifies that the reporting must be F-GHG-specific, for purposes of these comments we must assume that this will continue to be the case. If so, this exacerbates the confidentiality issues associated with each of the inputs discussed below. Reporting the inputs to emission equations listed below, in the context of emissions by specific F-GHG, will reveal very sensitive manufacturing and process information, often by specific chemical produced, that would be very valuable to competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 5

Comment: §98.126(b)(2) – Balanced chemical equation describing the reaction used to manufacture the F-GHG product (specifically, the equation that provides the stoichiometric coefficients in Equation L-7). – For example the manufacturing technology at one of our sites and catalysts used at another site are confidential and can not be disclosed. Chemical reactants and stoichiometry are likewise confidential. Competitors may adopt our competitive process if disclosed. If a competitor knows specific stoichiometry, that assists in determining our cost to

manufacture and cost structure. Note that Subparts O and OO allow identity and mass of reactants to be reported as confidential.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 7

Comment: §98.126(b)(5) plus (b)(8) [the commenter states that the citation was originally listed as §98.126(b)(6)] – In sum, these equate to the mass of each by-product generated – With by-product names, the type of operation used would be made known to competitors, and they would be able to determine some operating cost information. We recommend that EPA allow the name to be redacted or use generalized by-product categories, if byproduct name is considered by the producer to be CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 8

Comment: §98.126(c)(1) – The identity and quantity of the process activity used to estimate emissions (*e.g.,* tons of product produced or tons of reactant consumed). [The commenter indicates that they opposed public disclosure of this information because it would allow competitors to gain an advantage.]

§98.126(c)(2) – The site-specific, process-vent-specific emission factor(s) or emission calculation factor for each process vent. When this data is combined with the mass emitted from each process vent, as required in §98.126(c)(3), the quantity of the process activity (*e.g.,* tons of product produced or tons of reactant consumed), can be calculated. Our concerns with public disclosure of this information have been repeated many times in the foregoing paragraphs.

§§98.126(b)(3) to (b)(12) [the commenter states that the citation was originally listed as §98.126(b)(2)-(b)(10)] – In summary, this combination of information describes every aspect of the process in such detail that all business and technology information essential to competitive

intelligence will be provided to fluorinated gas manufacturing competitors inside and outside the U.S.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 15

Comment: There are specific data elements listed by EPA under Rule 98, Subpart L, that Air Products considers CBI. The following general comments and considerations regarding CBI apply to all inputs to emissions equations under 98.126(b) and (c), and are also applicable to other data elements in this subpart.

Air Products facility in Tamaqua, PA is the primary manufacturer of NF3 in the U.S., and to our knowledge, there are only two manufacturers of NF3 in the United States. Almost all of the equipment, associated instrumentation/devices and technology used by Air Products to produce NF3 has been organically designed and refined. Air Products has invested millions of dollars over 20 years in the research, development and refinement of these production processes and product characteristics. Therefore, NF3 production information such as process unit design, general equipment design, number of units, and description of gas collection, handling and purification systems is not available in the general marketplace. Reporting NF3 production and process data as proposed by this rule essentially discloses all this critical NF3 knowledge, and it is our belief that public disclosure of this information, all considered proprietary, would substantially harm Air Products' competitive position.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 19

Comment: Essentially, the information to be reported Subpart L as public "emission data" would provide a competitor with a detailed roadmap of our NF3 manufacturing facility. USEPA must consider that NF3 production at our Tamaqua, PA facility is the single largest source of fluorinated-GHG emissions from the facility. Unlike many other industrial activities where reported emissions will primarily consist of carbon dioxide emissions, Subpart L data will be chemical-specific and emission-specific information that, when coupled with process descriptions, will provide detailed information that has not been previously placed in the public domain. This information would include product chemical compositions, process yields, raw material usage and production volumes (all considered CBI under Subpart OO). Competitors may well be able to use the information to reverse engineer process chemistry, process steps and product formulations, as well as estimating capacity and capacity utilization which are important to determining competitive positions and pricing.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 16

Comment: There are specific data elements listed by EPA under Rule 98, Subpart L, that Air Products considers CBI. The following general comments and considerations regarding CBI apply to all inputs to emissions equations under 98.126(b) and (c), and are also applicable to other data elements in this subpart.

It is also important to understand that most of Air Products' NF3 competitors are located outside of the U.S. (estimated at less than 15 NF3 manufacturers world-wide), where very little to no environmental reporting is required. If confidential information was required to be publicly disclosed, it would create significant commercial and competitive advantages for Air Products' competitors that manufacture NF3 in other nations. Furthermore, the release of confidential information is particularly concerning to Air Products because of the substantial investment it has made, and continues to make, in research and development for fluorinated products and similar special materials (including substitutes for F-GHGs). Maintaining proprietary and process-specific data will disclose to our competitors critical information about evolving products, processes, technologies and applications. These competitors could then utilize this information to develop competing or the same products without the significant time and expense investment required to conduct their own research and development initiatives.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 15

Comment: Whereas information contained in other paragraphs of §98.126 would be sufficient alone to compromise trade secrets, the information contained in these three reporting elements is highly confidential because it could be used to determine the quantities and contents of all manufacturing streams. Since §98.126(a)(3) is simply the product of §§98.126(c)(1) and (2), reporting any two elements will allow for the third to be calculated. The information being reported in these sections could provide the mass and composition of all elements of the process. For example, a fluorinated-GHG product is manufactured using a series of processes, resulting in an isolated intermediate. These may include a variety of reactions and synthesis operations. Some of these materials are specialty fluids that are made in small volumes and have insignificant contributions to F-GHG emissions. While these rules do provide for some flexibility where process emissions are low, there are no "reporting" thresholds. Each process, regardless of the emissions, must be reported to the same level of detail. Where the mass removed from the process and sent to a destruction device is not reported elsewhere, it could be easily determined by material balance for each of the separate process steps. Since the quantity of all these isolated intermediates are being reported under the subpart, the quantity of material being added to each subsequent process (isolated intermediate produced previously) would be known. The emission streams themselves and/or fugitive emission estimates could provide the elemental composition of these isolated intermediates. For some processes, the emissions from the process and the output from the process could provide a material balance for the entire process. Individual process yields could be easily calculated. The mass and composition of the process inputs and outputs could also be used to determine the presence and elemental composition of proprietary additives.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 22

Comment: Loss Factor used to account for the loss of HCFC-22 upstream of the measurement. Emission factors in conjunction with TRI emissions of HCFC-22 can be used to back calculate production, or other production activity which is CBI. As noted above, EPA already recognizes the business sensitive nature of production information.

Annual mass of HFC-23 fed into the thermal oxidizer. The destruction of HFC-23 is equivalent to production which can correlate to HCFC-22 production quantity. Subpart OO treats this

information as confidential, meaning that EPA already realizes the sensitive nature of such information. With such information, competitors can gain unfair advantage in understanding market competitiveness.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 21

Comment: Annual mass of HFC-23 generated, sold, destroyed off-site, and inventory. While ACC agrees that emissions of HFC–23 are not CBI, the underlying data and calculations used to derive the emissions through mass balance essentially provide production quantity, similar to the comment above. EPA already recognizes the business sensitive nature of production information.

Annual mass of HFC-23 fed into the thermal oxidizer. The destruction of HFC-23 is equivalent to production which can correlate to HCFC-22 production quantity. Subpart OO treats this information as confidential, meaning that EPA already realizes the sensitive nature of such information. With such information, competitors can gain unfair advantage in understanding market competitiveness.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 26

Comment: Very few of the inputs to emission equations are currently available in the public domain, all dependent upon the individual facility, the manufacturing process, the products produced and the agency determination. In the exceptional instance when these inputs are requested by an agency, the facility is granted CBI protection, or the facility and agency agree to exchange information in an alternative way that is not confidential. Accordingly, it is inappropriate to assume that any of this data is "not sensitive to any reporter." In publishing its CBI determinations on July 7, 2010, EPA failed to recognize that while some of this information may be "discernable from other publically available data" for some facilities, for many other facilities it is not. This is especially true for Subpart L, where products may be very unique and the processes used in their manufacture them will have customized configurations. Air Products also notes that […] these facilities exercise great care protecting technology-sensitive information. For some facilities, the products being manufactured are common commercial chemicals and detailed process and chemical information is available in the public sector.

However for many other facilities including our NF3 production facility, the manufactured products are very unique, potentially subject to export control requirements, and this information has not been placed in the public sector.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 27

Comment: Input values to emission equations are not routinely reported in the specific manner specified in 98.126. Fluorinated-GHG emissions are commonly reported in both for air permit applications and in periodic emission inventory reports, but they are reported as part of a pollutant chemical group, e.g. volatile organic compounds (VOC). Unless individual chemicals are considered Hazardous Air Pollutants (HAP) (either individually or part of a HAP chemical group, such as glycol ethers), or are subject to a unique state reporting requirement, detailed composition of an individual vent stream by fluorinated GHG is not required nor reported. Even if reporting is done by an individual HAP, this would not lead to information on a specific fluorinated-GHG.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 28

Comment: Equipment descriptions contained in air permit applications typically only reference a specific product when the equipment is dedicated to that product. In other cases, the equipment may receive a generic description that would not contain a listing of the specific products that are being manufactured in that equipment. Processes covered by a NESHAP may be required to report detailed information on "operating scenarios," but emission information is limited to HAPs and product-specific identifying information that is managed as CBI. HAP emissions are not considered as sensitive as fluorinated-GHG emissions because HAPS are often generic to many applications, i.e. xylene may be used widely as a cleaning solvent, and it would not necessarily provide detailed information on a specific process or product. In addition, where multiple products are made in a single piece of equipment, data including consumption, production and emissions is usually reported as a single amount for a number of products. And emissions are generally reported as criteria pollutants (i.e., CO, NOx, Pb, PM, SO2 & VOCs) and individual and aggregate HAPs.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 6

Comment: For purposes of §98.126 (Subpart L), EPA will need to consider the implications of export control requirements on potential release of information on inputs to emissions equations. As discussed in detail in ACC's September 7, 2010 comments on EPA's Proposed Confidentiality Determinations, Subpart L covers facilities that produce components made from fluorinated compounds. This is a category of products and intermediate materials that may be controlled under the Export Administration Regulations (EAR). This technology is expressly controlled for export due to national security, nuclear non-proliferation, anti-terrorism, missile technology, and other risks. The prohibitions against exports include "deemed exports," i.e., the sharing within the U.S. of controlled technology to those who are not U.S. citizens or permanent residents, refugees or asylees of the U.S. and possess citizenship of countries to which the technical data is controlled.

Because the level and detail of emissions information currently required by Part 98 could constitute the disclosure of controlled production technology, and possibly, technical data to the public, EPA will need to follow the requirements for requesting authorization from other government agencies or implement an export control plan to assure compliance with all U.S. export control regulations, including putting in place the appropriate controls. ACC's September 7, 2010 comments include more detail on these requirements.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment **Excerpt Number:** 17

Comment: Almost none of the inputs to emission equations are already publicly available. For some facilities some of this information may be available; for other facilities with confidential processes this information is not reported to agencies. Typically the latter type of facility would not be asked by agencies for this type of information. In the rare situation in which some of this information is requested, the facility is granted CBI protection or the facility and the agency agree to provide information in an alternative way that is not confidential. Accordingly, it is inappropriate to assume that any of this data is "not sensitive to any reporter" (emphasis added). In publishing its CBI determinations on July 7, 2010, EPA failed to recognize that while some of this information may be "discernable from other publicly available data" for some facilities, for

many other facilities it is not. This is especially true for Subpart L, where products may be unique and the processes used in their manufacture will have customized configurations. ACC would also point out that "static characteristics" that are not inputs to emissions can also be considered CBI, and these facilities exercise great care protecting technology-sensitive information. For some facilities, the products being manufactured are common commercial chemicals and detailed process and chemical information is available in the public sector. However for many other facilities, the products being manufactured are unique, potentially subject to export control requirements, and certain information is not released to the public sector.

Inputs to emission equations that are not routinely reported in the specific manner specified in §98.126 include:

1. Information on emissions of F-GHGs commonly will be reported both for air permit applications and in state emission inventory reports as part of a chemical group, e.g. volatile organic compounds (VOCs). Unless individual chemicals are considered Hazardous Air Pollutants (HAPs) (either individually or part of a HAP chemical group, such as glycol ethers) or subject to some other state reporting requirement, reports on the detailed composition of an individual vent stream by fluorinated GHG is not usually required and not reported at all sites. Even if emission reporting is done by an individual HAP, this would not lead to information on specific F-GHGs.

2. Descriptions of individual pieces of equipment that are contained in air permit applications may only be referenced when the equipment is dedicated to a specific product. In other cases, the equipment may receive a generic description that would not contain a listing of the specific products that are being manufactured using that equipment. Processes covered by National Emission Standards for HAPs may be required to report detailed information on "operating scenarios," but emissions information is limited to HAPs and product specific identifying information is considered and handled as CBI. The use and emissions of HAPs would not be considered as sensitive as specific information on the composition of fluorinated-GHG because their use may be generic to many applications, i.e., xylene could be used as a cleaning solvent or for some other application – either way, it would not necessarily provide detailed information on a specific process.

For example, an F-GHG is produced in a flexible batch processing unit. That unit is currently subject to a number of air emissions regulations and construction and operating permits. Past permit applications have contained information on maximum emission rates of criteria pollutants and various reports may require information on these same parameters as well as HAPs or other state regulated materials. The facility will utilize the emission factor approach in determining and reporting emissions under this subpart. §98.126(a)(2)(i) requires the reporting of "Each fluorinated gas production process and all fluorinated gas production processes combined." The emissions information that is reported under §98.126(a)(2)(i), combined with the "mass of each fluorinated GHG emitted from each process vent (metric tons)" being reported under §98.126(c)(3), will in some cases provide sensitive trade secret information. If the process is a simple packaging operation, the emissions from the process may be determined by chemical engineering equations using the product constituent vapor pressures. In this case the chemical

composition of the product can be determined from the emissions stream. Similar information could be extracted from data reported under §98.126(c)(4), "The mass of each fluorinated GHG emitted from equipment leaks (metric tons)," since the mass of fugitive emissions of each constituent will be directly proportional to the composition of each constituent. We note that EPA determined that none of this information was subject to CBI protection, but when this same information is reported pursuant to §98.126(a)(6), "the chemical formula and total mass produced of the fluorinated gas product in metric tons, by chemical and process," EPA determined it is CBI. All of the above information on production outputs and F-GHGs from process vents and processes should be held confidential.

The CBI implications of reporting under the material balance method described in §98.123(b) are particularly onerous. For this rule, each process would be required to report complete information on the balanced chemical equation (§98.126(b)(2)). While EPA originally proposed to require only the mass of each reactant added under §§98.126(b)(3) and (6) (and not the formula), there would be little difficulty in determining how much of each reactant was added to and removed from the process. With the additional reporting of the mass of product produced (§98.126(b)(7)), mass of product emitted (§98.126(b)(4)), and mass of each byproduct emitted (§98.126(b)(5)), a detailed understanding of the process can be obtained. For some facilities, the basic chemical equations for a process may have been placed in the public sector. However for other facilities, this type of detailed information would provide competitors with information on specific production quantities and process yields, and create substantial harm to the competitive position.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 11

Comment: In some cases the basic chemical equations for a process may have been placed in the public sector while at the same time there are other processes where balanced chemical equations have not been placed in the public sector. It would be inappropriate to assume that the CBI concerns are consistent across the entire industry. The production of certain chemicals is well understood in the industry. In other cases a product may be unique and/or export controlled and this information may be highly confidential. Where process stoichiometry is understood, the additional step of requiring the emission calculation inputs implicates confidential information because these inputs currently are confidential.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 36

Comment: The Fluorinated Gas Production data elements EPA has proposed to defer include data inputs necessary to determine emissions using both a mass balance approach, *e.g.*, 40 C.F.R. Part 98.126(b)(1), and an emission factor approach, *e.g.*, 40 C.F.R. Part 98.126(c)(1).

Absent any evidence that disclosure of these data elements could cause covered facilities competitive harm, EPA can have no rational justification for delaying the reporting date.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 4

Comment: §98.126(b)(1) – The data used in calculating the absolute uncertainties, including quantities and their uncertainties. – Air permit calculations, including production and raw materials, are handled as confidential at our sites and claimed as confidential in submittals to the permitting agencies. Competitors can determine market share, cost structure and other vital aspects of the business with this information. Subparts O and OO describe this information [Footnote: That is, data similar to that used to calculate absolute and relative uncertainties; *e.g.*, production and raw material information. While Subparts O and OO do not require uncertainty calculations, they do require reporting of information similar to that used in Subpart L uncertainty calculations. In those subparts, this information is classified as CBI.] as confidential. The same determination is needed for Subpart L.

§98.126(b)(1) – The data used in calculating the relative uncertainties, including quantities and their uncertainties. – Same concern as above.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.

Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 6

Comment: §98.126(b)(6)[The commenter writes that the citation was originally listed as §98.126(b)(3)] – Total mass of each reactant fed into the production process. – [The commenter indicates that they oppose public availability of this information because it would provide an advantage to competitors.]

§98.126(d) – Method used to estimate the missing data – Production data may need to be used to estimate missing data. Production data can be used by competitors to gauge our competitiveness in the marketplace (*e.g.,* for setting price, building new supply, as explained in foregoing paragraphs).

§98.126(a)(6)[The commenter writes that the citation was originally listed as §98.126(a)(5)] – Chemical formula of each F– GHG gas. – Listed as CBI – but required to list emissions for each FGHG – Since a chemical name relates to its formula, chemical names associated with disclosure of emission information should be allowed to be generalized, into a category – such as "fluorinated greenhouse gas". The facility can submit a confidential version of required reports utilizing the chemical name and/or formula, and a non-confidential version for public dissemination with broad chemical categories used.

§98.126(b)(5) plus (b)(8) [The commenter writes that the citation was originally listed as §98.126(b)(6)] – In sum, these equate to the mass of each by-product generated – With by-product names, the type of operation used would be made known to competitors, and they would be able to determine some operating cost information. We recommend that EPA allow the name to be redacted or use generalized by-product categories, if byproduct name is considered by the producer to be CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 9

Comment: §§98.126(b)(3) to (b)(12) [The commenter writes that the citation was originally listed as §98.126(b)(2)-(b)(10)] – In summary, this combination of information describes every aspect of the process in such detail that all business and technology information essential to competitive intelligence will be provided to fluorinated gas manufacturing competitors inside and outside the U.S.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 10

Comment: 98.126(a)(3)-(6): ACC would note that the CBI determination for §98.126(a)(6) is consistent with those determinations made for the same information that is being reported under Subpart OO although this same information, i.e., production volume, would not be considered CBI because it is an "input to a emission calculation" under the general sections of 98.126 (b) and (c).

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 23

Comment: Rule §98.123(b)(3)(i): The process activity, such as process feed rate or process production rate, must be measured for the process-vent-specific emission factor method. The activity used to estimate this is CBI since the emissions and emission factor will use the activity factor to calculate the emission rate and associated emissions, and the activity will directly or indirectly related to production throughputs for each individual process and process vent. This information will provide a very comprehensive map of a facility's process and production capabilities, and it could be used by our competitors to better understand our production technologies, capacities and pricing structure, all of which is extremely sensitive business information. In lieu of reporting the process activity, facilities should be provided with the option to report a process activity factor that indexes or otherwise parametrically represents process feed rates or production rates in terms without disclosing the actual sensitive data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

11.0 SUBPART N

Commenter Name: Angus E. Crane, Executive Vice President, General Counsel
Commenter Affiliation: North American Insulation Manufacturers Association (NAIMA)
Document Control Number: EPA-HQ-OAR-2010-0929-0033.1
Comment Excerpt Number: 2

Comment: […]the calculation of emissions requires [glass production]facilities to report the annual mass of each carbonate-based raw material charged to each furnace . . .; and the carbonate-based mineral mass fraction for each carbonate-based raw material charged to a continuous glass melting furnace. (*See* Glass Production Final Rule: Mandatory Reporting of Greenhouse Gases, 40 C.F.R. Part 98, Subpart N.) This detailed and process-specific information […] is confidential business information embodying trade secrets and market sensitive data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Angus E. Crane, Executive Vice President, General Counsel
Commenter Affiliation: North American Insulation Manufacturers Association (NAIMA)
Document Control Number: EPA-HQ-OAR-2010-0964-0032.1
Comment Excerpt Number: 2

Comment: Antitrust concerns for NAIMA and its members are of a serious nature. The industry is comparatively small as far as the number of companies. NAIMA members are the industry leaders with the largest share of the insulation market. Because of these two facts – small number of companies and industry leaders – NAIMA and its members are scrupulously careful about any type of activity or discussion that might involve confidential business information. Particularly, the CBI data requested by EPA could be easily used to calculate raw material usage, rate of production, volume of production, etc. As the FTC so effectively illustrated in its comments to EPA, this creates potential antitrust issues. Therefore, NAIMA believes the optimum solution would be to prevent disclosure of such data to a government agency in the first instance.

[…] NAIMA recommends that EPA not require the glass industry to report the quantity of glass produced, the quantity of each carbonate based raw material charged and any other information that similarly could divulge product formulations and production quantities.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA also appreciates the comments from the FTC. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into consideration in determining the likelihood of each input to cause substantial competitive harm if released.

Commenter Name: Angus E. Crane, Executive Vice President, General Counsel
Commenter Affiliation: North American Insulation Manufacturers Association (NAIMA)
Document Control Number: EPA-HQ-OAR-2010-0929-0033.1
Comment Excerpt Number: 6

Comment: The specific type of data required by EPA of fiber glass manufacturers is the very type of data to which the Federal Trade Commission ("FTC") identified as having possible antitrust implications in its September 30, 2010 comments to EPA on the Agency's "Proposed Confidentiality Determinations." The FTC noted that EPA historically determined whether information qualified for confidential treatment on a case-by-case basis. EPA, however, concluded that the volume of greenhouse gases would make a case-by-case determination unduly burdensome to the Agency. In response to that decision, the FTC stated:

> The FTC is concerned, however, that the proposal may allow for the public release of competitively sensitive information. Specifically, because of the potential risk to competition, we suggest that data reported under three categories – "inputs to emission equations," "unit/process 'static' characteristics that are not inputs to emission equations," and "unit/process operating characteristics that are not inputs to emission equations," – may warrant confidential protection.

To clarify that these categories identified by the FTC impact glass companies, it is helpful to refer again to the FTC's comments which state that "[i]nputs to emission equations include, for example, volume of fuel combusted per year; production/throughput and raw material consumption, such as petrochemical production; characteristics of raw materials, products, and by-products; and facility operating information." These are the very data points required of glass companies.

The FTC explains why public disclosure of sensitive information creates antitrust concerns:

[S]haring information among competitors may increase the likelihood of collusion or coordination on matters such as price or output. [FTC/DOJ GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS §3.31(b).] Coordinated interaction among competitors includes collusive agreements, but it can also include conduct not necessarily condemned by the antitrust laws. [Footnote: This includes parallel accommodating conduct by rivals in which "each rival's response to competitive moves made by other is individually rational, and not motivated by retaliation or deterrence, nor intended to sustain an agreed-upon market outcome, but nevertheless emboldens price increases and weakens competitive incentives to reduce prices or offer customers better terms." FTC/DOJ HORIZONTAL MERGER GUIDELINES §7.] Firms that engage in coordinated interaction are better able to predict, even absent explicit agreement, how rivals will react to price changes. [Footnote: The FTC recognizes that rivals in the petroleum and other industries collect market intelligence to anticipate and respond to rivals' output and pricing decisions. *See, e.g.*, *In re* Chevron Corp., FTC Docket No. C-4023, Analysis of Proposed Consent Order to Aid Public Comment (Sept. 7, 2001) ("Integrated refiner-marketers carefully monitor the prices charged by their competitors' retail outlets, and therefore can readily identify firms that deviate from a coordinated or collusive price.").]

> The potential for information disclosure to harm competition will depend on the structure of the affected market and the type of information disclosed. [*See* Todd v. Exxon Corporation, 275 F.3d 191, 199 (2d. Cir. 2001) (quoting U.S. v. United States Gypsum Co., 438 U.S. 422, 441 n. 16 (1978)) ("A number of factors including most prominently the structure of the industry involved and the nature of the information exchanged are generally considered in divining the precompetitive or anticompetitive effects of [the information disclosed.]"); *see also* FTC/DOJ GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS §3.31(b).]

Given these antitrust concerns, NAIMA urges EPA to abandon the collection of data not directly related to actual greenhouse gas emissions. Specifically, the information requested of glass companies qualifies as confidential business information and in some instances could constitute trade secrets. NAIMA is concerned that many of these requests seek information that is proprietary, confidential business information and market sensitive. If this information, despite EPA's best intentions and controls, were inadvertently divulged, it could potentially impact the competitive advantage in the marketplace of many companies. Equally important, the reporting requirements for such sensitive information will elicit information that is irrelevant to EPA's purpose and statutory mandate here. For example, the "Annual quantity of glass produced" is irrelevant to emissions. (*See* Glass Production Final Rule: Mandatory Reporting of Greenhouse Gases, 40 C.F.R. Part 98, Subpart N, 40 CFR § 98.146.) Therefore, the Agency should require facilities to report their emissions, but the quantity of raw materials and their related mineral mass fractions and other sensitive data should not be reported. The questionable relevance of the information does not justify the gravity of the risks.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA also appreciates the comments from the FTC. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into consideration in determining the likelihood of each input to cause substantial competitive harm if released.

12.0 SUBPART O

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 3

Comment: Relative to production and sales data: DuPont participates in an industry group, a panel of CEFIC (the European Chemical Industry Council), reporting fluoropolymer production for which HCFC-22 is the raw material. The policy of CEFIC is to report only aggregate figures in its publications of regional capacity and sales data. The minimum aggregation is three similarly sized reporting companies so no individual data can be determined by any one of the companies. This is an illustration of steps taken to protect such information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 2

Comment: HCFC-22 plant capacities and productions are considered CBI because the industry is going through a rationalization on a regional basis as HCFC-22 is phased out as a refrigerant. The process of rationalization is through "arms length" negotiations by the various producers for supply of materials, as each considers shutdown of its facilities during the phase-out process. The HCFC-22 transaction prices are based on the options of each of the parties to produce or purchase. Knowing the options of the other party gives an advantage in those negotiations. As a result no party involved wants their production and capacity data made public, since these are major determinants of cost of manufacture, which is the most important element in price transaction negotiations. Therefore, such data, including data that can be used to develop such understanding, should be held confidential.

Specific concerns in this area include:

- §98.156(a)(2) – Loss Factor used to account for the loss of HCFC-22 upstream of the measurement – Emission factors in conjunction with TRI emissions of HCFC-22 can be used to back calculate production, or other production activity which is CBI. Competitors can gain unfair advantage in understanding our market competitiveness, as described in the introductory paragraph to this section.
- §§98.156(a)(7) to (a)(10) – Annual mass of HFC-23 emitted – The Intergovernmental Panel on Climate Change (IPCC) issued a paper available on a simple Google search of HFC-23 from which one can determine the HFC-23 percent of HCFC-22 production for DuPont[1]. Therefore knowing HFC-23 formation in the process will enable one to determine HCFC-22 production. Again, refer to the introductory paragraph of this section to understand the concern with this.
- §98.156(b)(1) –Annual mass of HFC-23 fed into the thermal oxidizer – Destruction of HFC-23 is essentially equivalent to production which can correlate to HCFC-22 production quantity, as explained in the previous point. Note that Subpart OO identifies this information as confidential.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

13.0 SUBPART P

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 3

Comment: Under §98.160 (Subpart P) of the Mandatory Reporting Rule (MRR), EPA asks for operating data that has been used to calculate the emissions of CO2 and minor combustion by-products, CH4 and N2O.

Air Products considers such data as confidential business information (CBI) and routinely takes measures to claim as CBI and protect such information from public disclosure due to the potential use by competitors and customers to negatively affect our competitive position. The basis for this representation is made below for each of the claimed data elements.

Data Element(s)

- Monthly consumption of fuels, by type, used for hydrogen production (§98.166b2)
- Monthly consumption of feedstocks, by type, used for hydrogen production (§98.166b2)

Air Products strives to protect the underlying data that indicates the primary cost/revenue position of our facilities and process designs. State (or air quality district) requirements for disclosure of criteria pollutant and/or GHG emissions either do not require submittal of the fuel consumption data elements EPA has asked for, or allow such data to be claimed and protected as confidential business information – regardless of whether such data is used in emission calculations. In some cases (e.g. California, Alberta, Ontario), such data is verified by a third party entity, bound by confidentiality provisions of the reporting rules and/or the contract with the reporting facility. In all cases, the protected data is available for review by the regulatory authority on an "as requested" basis – with confidentiality provisions employed.

In air permit applications (for initial construction, modifications or renewals), facility capacity and firing rates (e.g. fuel consumptions) and, only when necessary, feedstock consumption rates, are typically provided at maximum operating conditions with, where appropriate, a margin of safety applied to insure continuous compliance. Fuel/feedstock characterization (alternate types of fuel/feedstock types and/or sources) is only provided in a broad range to reflect the potential diversity of sourcing alternatives and, where necessary, reflect the maximum emission range that could result from the differing chemical compositions of the alternative fuel/feedstock. ACTUAL capacity, firing rates, fuel and feedstock consumption and source are not provided in such applications.

As demonstrated above, it is not difficult to calculate a reasonable estimate of a facility's actual hydrogen production given the reported feedstock consumption, characterization, and well know process chemistry. Even EPA has agreed that disclosure of a facility's actual production is considered CBI. While reporting the "Annual quantity of Hydrogen Produced (No CEMS)" (§98.166b3) is required under the MRR, Table A-1 of the CBI Proposal[1] indicates such data is

"Production/Throughput Data that are Not Inputs to Emission Equations" and thus considered CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 4

Comment: Under §98.160 (Subpart P) of the Mandatory Reporting Rule (MRR), EPA asks for operating data that has been used to calculate the emissions of CO2 and minor combustion by-products, CH4 and N2O.

Air Products considers such data as confidential business information (CBI) and routinely takes measures to claim as CBI and protect such information from public disclosure due to the potential use by competitors and customers to negatively affect our competitive position. The basis for this representation is made below for each of the claimed data elements.

Data Element(s)

- Monthly consumption of fuels, by type, used for hydrogen production (§98.166b2)
- Monthly consumption of feedstocks, by type, used for hydrogen production (§98.166b2)

Air Products employs many procedural, physical, electronic and contractual security measures to protect confidential information, such as these data elements. Fences surround all our facilities; access is limited to employees or registered visitors/vendors. Electronic information is protected through sophisticated computer network access security techniques and mandatory file encryption on portable electronic storage media. Contracts with subcontractors, vendors, consultants and temporary employees contain non-disclosure agreements related to intellectual property. Further, all employees sign employment agreements requiring adherence to intellectual property protection procedures and receive periodic training in these procedures. Additional corporate procedures regarding review and approval of information to be publically disclosed (e.g. publication in technical journals, etc.) further protect disclosure of information considered confidential.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 7

Comment: Under §98.160 (Subpart P) of the Mandatory Reporting Rule (MRR), EPA asks for operating data that has been used to calculate the emissions of CO2 and minor combustion by-products, CH4 and N2O.

Air Products considers such data as confidential business information (CBI) and routinely takes measures to claim as CBI and protect such information from public disclosure due to the potential use by competitors and customers to negatively affect our competitive position. The basis for this representation is made below for each of the claimed data elements.

Data Element(s)

- Monthly analyses of carbon content for fuels used for hydrogen production (§98.166b5)
- Monthly analyses of carbon content for feedstocks used for hydrogen production (§98.166b5)
- Monthly analyses of the molecular weight of gaseous fuels (§98.166b6)
- Monthly analyses of the molecular weight of gaseous feedstocks (§98.166b6)

Air Products strives to protect the underlying data that indicates the primary cost/revenue position of our facilities and process designs. State (or air quality district) requirements for disclosure of criteria pollutant and/or GHG emissions either do not typically require submittal of the fuel composition data elements EPA has asked for, or allow such data to be claimed and protected as confidential business information – regardless of whether such data is used in emission calculations. In some cases (e.g. California, Alberta, Ontario), such data is verified by a third party entity, bound by confidentiality provisions of the reporting rules and/or the contract with the reporting facility. In all cases, the protected data is available for review by the regulatory authority on an "as requested" basis – with confidentiality provisions employed.

In air permit applications (for initial construction, modifications or renewals), fuel/feedstock characterization (alternate types of fuel/feedstock types and/or compositional aspects) is only provided in a broad range to reflect the potential diversity of sourcing alternatives and, where necessary, reflect the maximum emission range that could result from the differing chemical compositions of the alternative fuel/feedstock and are provided with an adequate margin of safety to assure compliance. ACTUAL fuel and feedstock compositions and sources are not typically provided in such applications.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 24

Comment: The industrial gases industry strives to protect the underlying data that indicates the primary cost/revenue position of their facilities and process designs. State (or air quality district) requirements for disclosure of criteria pollutant and/or GHG emissions either do not require

submittal of the fuel consumption data elements EPA has asked for, or allow such data to be claimed and protected as confidential business information – regardless of whether such data is used in emission calculations. In some cases (e.g. California, Alberta, Ontario), such data is verified by a third party entity, bound by confidentiality provisions of the reporting rules and/or the contract with the reporting facility. In all cases, the protected data is available for review by the regulatory authority on an "as requested" basis – with confidentiality provisions employed. In air permit applications (for initial construction, modifications or renewals), facility capacity and firing rates (e.g., fuel consumptions) and, only when necessary, feedstock consumption rates, are typically provided at maximum operating conditions with, where appropriate, a margin of safety applied to insure continuous compliance. Fuel/feedstock characterization (alternate types of fuel/feedstock types and/or sources) is only provided in a broad range to reflect the potential diversity of sourcing alternatives and, where necessary, reflect the maximum emission range that could result from the differing chemical compositions of the alternative fuel/feedstock. Actual capacity, firing rates, fuel and feedstock source and consumption are not provided in such applications.

[…] It is not difficult to calculate a reasonable estimate of a facility's actual hydrogen production given the reported feedstock consumption, characterization, and well known process chemistry. Even EPA has agreed that disclosure of a facility's actual production is considered CBI. While reporting the "Annual quantity of Hydrogen Produced (No CEMS)" (§98.166(b)(3)) is required under the MRR, Table A-1 of the CBI Proposal3 indicates such data is "Production/Throughput Data that are Not Inputs to Emission Equations" and thus considered CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 27

Comment: The industrial gases industry strives to protect the underlying data that could disclose the primary cost/revenue position of their facilities and process designs. State (or air quality district) requirements for disclosure of criteria pollutant and/or GHG emissions typically do not require submittal of the fuel composition data elements EPA has asked for in Part 98, or allow such data to be claimed and protected as confidential business information – regardless of whether such data is used in emission calculations.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.

Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 2

Comment: Under §98.160 (Subpart P) of the Mandatory Reporting Rule (MRR), EPA asks for operating data that has been used to calculate the emissions of CO2 and minor combustion by-products, CH4 and N2O.

Air Products considers such data as confidential business information (CBI) and routinely takes measures to claim as CBI and protect such information from public disclosure due to the potential use by competitors and customers to negatively affect our competitive position. The basis for this representation is made below for each of the claimed data elements.

Data Element(s)

- Monthly consumption of fuels, by type, used for hydrogen production (§98.166b2)
- Monthly consumption of feedstocks, by type, used for hydrogen production (§98.166b2)

Aspect of the Facility Revealed by Disclosure of Data Element

Energy consumption represents the single largest (70-80+%) component of the variable operating costs of hydrogen production. Public disclosure of the actual consumption of the fuel and feedstock streams directly reveals to total energy consumption, and hence the *major operational cost*. Further, disclosing the fuel and feedstock consumption, by type, provides an insight to the *energy sourcing options* exercised by the facility. In addition, by having to disclose the fuel and feedstock separately, information about the facilities *actual production* and its *process efficiency* can be determined.

Understanding fuel and feedstock consumption provides insight to competitors and customers regarding a facility's actual operating costs and process efficiency. Such information can influence the competitive nature of current supply relationships and future business opportunities, both in the US and in foreign markets.

Understanding the actual selection among alternate fuel and feedstock choices provides further insight into actual operating costs and process capabilities. Some fuel and feedstock sourcing options may be considered "disadvantaged fuels", by-product energy streams that have lesser value than primary fuels of commerce (e.g. natural gas). A facility which has developed commercial arrangements and process capability to employ such secondary energy sources holds a competitive advantage over facilities that may only have access to, or capability to use, primary energy sources as fuel and/or feedstock. While the availability of, and the conceptual potential to employ such disadvantaged fuels is known in the industry, public disclosure of the specific split between such secondary and primary energy sources, provides insight to competitors and customers regarding a facility's actual operating costs and process capabilities that the facility considered CBI.

As is demonstrated below, feedstock consumption data can provide a reasonably accurate estimate of a facility's actual production. Disclosure of actual production from a facility provides competitive information about the relative revenue and profitability of a production facility. When actual production is compared with nameplate capacity (information typically included in

public documents, such as air permit applications), competitors and customers understand a facility's capacity utilization. Such information distorts the balance in competitive negotiations and commercial bids for increase or additional sales.

Further, and of utmost concern, is the ability to make a reasonably accurate assessment of a facility's process efficiency by back calculation from the split between energy used as feedstock and fuel. The pathway for this "reverse engineering" is as follows:

1. Feedstock consumption can be used, applying well known process chemistry (stoichiometry) to calculate the amount of crude hydrogen product produced. This might be considered the "productive" portion of the facilities energy consumption – it yields product. This is a quick and effective means to obtain a reasonable estimate of actual hydrogen production for the facility.

2. Fuel consumption can be used to determine the amount of energy required to provide the process conditions (typically furnace temperature) to allow the feedstock to be converted into product hydrogen. The fuel consumption may be considered the "non-productive" of the facilities total energy consumption.

3. With the hydrogen production estimated from the feedstock consumption (step 1) and the energy required to sustain the conversion process (fuel consumption – step 2); confidential business information regarding the efficiency of the production process and facility design can be determined.

4. After correcting for the energy consumption of the endothermic and exothermic reactions to produce hydrogen (a value that can be calculated from known process chemistry and thermodynamics, and the production quantity of hydrogen from the reported "feedstock consumption" value), the remaining useful energy from fuel consumption provides an estimate of the thermal energy available for subsequent heat recovery, and hence steam production. Steam is a valued second product of hydrogen production and the amount of steam produced and exported provides further insight to the operating costs and revenue of a hydrogen production facility.

The high energy intensity of hydrogen production requires high process efficiency in order to remain competitive in the industry. Differences of as little as 1% in delivered efficiency can swing the economics of which technology or which supplier should be employed. Disclosure of the process information as outlined above creates a clear competitive threat, both for U.S. based production opportunities as well as international opportunities.

Air Products invests millions of dollars every year in process efficiency improvements in order to remain competitive in a very competitive industry. Any domestic or international competitor who can exploit publically disclosed information and thus short-circuit the discovery and implementation phases of such R&D has expropriated our innovation investment and gains the benefit at little or no cost. This stifles future innovation – in this case, innovation that leads to greater process efficiency, reduced energy consumption, and reduced greenhouse gas emissions – all stated goals of EPA climate change program.

Further, disclosure, through back-calculation, of facility production provides actual production data that is not readily available, particularly on a facility by facility basis. U.S. Federal Trade

Commission regulations typically preclude such disclosures among competitors due the risk for such information to be misused in anti-competitive behaviors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 6

Comment: Under §98.160 (Subpart P) of the Mandatory Reporting Rule (MRR), EPA asks for operating data that has been used to calculate the emissions of CO2 and minor combustion by-products, CH4 and N2O.

Air Products considers such data as confidential business information (CBI) and routinely takes measures to claim as CBI and protect such information from public disclosure due to the potential use by competitors and customers to negatively affect our competitive position. The basis for this representation is made below for each of the claimed data elements.

Data Element(s)

- Monthly analyses of carbon content for fuels used for hydrogen production (§98.166b5)
- Monthly analyses of carbon content for feedstocks used for hydrogen production (§98.166b5)
- Monthly analyses of the molecular weight of gaseous fuels (§98.166b6)
- Monthly analyses of the molecular weight of gaseous feedstocks (§98.166b6)

Aspect of the Facility Revealed by Disclosure of Data Element

Energy consumption represents the single largest (70-80+%) component of the variable operating costs of hydrogen production. Public disclosure of the carbon content and molecular weight of the fuel and feedstock streams reveals characteristics about the compositional nature of the individual fuel/feedstocks and their sources. While this is no revelation for common primary fuels of commerce (e.g. natural gas), it is a unique characterization of alternative, secondary energy sources. Such compositional characterization allows determination of energy value and hydrogen content (as H2), values which reflect the inherent value of such alternative energy streams as fuel and feedstock, respectively

Since energy is such a major component of the facility operating cost, insights into the relative "value" of individual energy sources would potentially compromise competitive advantages due to superior energy sourcing alternatives. Further, disclosure that provides insight into the range of fuel and feedstock compositional variability reveals insights into the facility's process capability to productively use alternative energy sources – another aspect of potential competitive advantage.

Understanding the potential trade-offs between alternative fuel/feedstock options (based on compositional differences and hence "value" of the unique attributes noted above), particularly when coupled with disclosure of their corresponding consumption, provides insight to competitors and customers regarding a facility's actual operating costs and process capability. Such information can influence the competitive nature of current supply relationships and future business opportunities, both in the US and in foreign markets.

Some fuel and feedstock sourcing options may be considered "disadvantaged fuels", by-product energy streams that have lesser value than primary fuels of commerce (e.g. natural gas). Alternatively, such secondary energy streams may have varying amounts of hydrogen content (as H2) which, when employed as feedstock, allow for increased product yield without corresponding feedstock consumption and reduced fuel consumption. Disclosure of the carbon content and molecular weight, along with general descriptions of the sources (routinely provided as public information in air permit applications) enables a knowledgeable supplier of the alternative energy source to make a more "informed" assessment of the relative value of the alternative energy source (relative to other available fuels/feedstock choices) and can influence the availability and price a facility may incur.

Similarly, disclosure which reveals the potential advantaged value of alternative energy supplies is a reflection on the relative cost of production and thus informs competitors and customers on the competitive position of a specific facility's supply.

Further, disclosure that provides insight into the range of fuel and feedstock compositional variability reveals insights into the facility's process capability to productively use alternative energy sources. A process/facility design that has incorporated features that allow for the enhanced flexibility to utilize such secondary energy sources represents a potential competitive advantage. Since such operating flexibility can offer opportunities for reduced operating cost, disclosure of this operating flexibility reveals the design advantage. Knowledge of this operating flexibility provides insights relative to both existing production facilities (and their competitive position relative to customers and competitors), as well as indicates advantages in potential process design for future hydrogen supply opportunities in the U.S. and internationally.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 23

Comment: Energy consumption represents the single largest (70-80+%) component of the variable operating costs of hydrogen production. Public disclosure of the actual consumption of the fuel and feedstock streams directly reveals total energy consumption, and hence the major operational cost. Further, disclosing the fuel and feedstock consumption, by type, provides an insight to the energy sourcing options exercised by the facility. In addition, by having to disclose

the fuel and feedstock separately, information about the facilities actual production and its process efficiency can be determined.

Understanding fuel and feedstock consumption provides insight to competitors and customers regarding a facility's actual operating costs and process efficiency. Such information can influence the competitive nature of current supply relationships and future business opportunities, both in the US and in foreign markets.

Understanding the actual selection among alternate fuel and feedstock choices provides further insight into actual operating costs and process capabilities. Some fuel and feedstock sourcing options may be considered "disadvantaged fuels:" by-product energy streams that have lesser value than primary fuels of commerce (e.g., natural gas). A facility which has developed commercial arrangements and process capability to employ such secondary energy sources holds a competitive advantage over facilities that may only have access to, or capability to use, primary energy sources as fuel and/or feedstock. While the availability of, and the conceptual potential to employ such disadvantaged fuels is known in the industry, public disclosure of the specific split between such secondary and primary energy sources, provides insight to competitors and customers regarding a facility's actual operating costs and process capabilities that the facility considered CBI.

As is demonstrated below, feedstock consumption data can provide a reasonably accurate estimate of a facility's actual production. Disclosure of actual production from a facility provides competitive information about the relative revenue and profitability of a production facility. When actual production is compared with nameplate capacity (information typically included in public documents, such as air permit applications), competitors and customers understand a facility's capacity utilization. Such information distorts the balance in competitive negotiations and commercial bids for increase or additional sales.

Further, and of utmost concern, is the ability of a competitor to make a reasonably accurate assessment of a facility's process efficiency by back calculation from the split between energy used as feedstock and fuel. The pathway for this "reverse engineering" is as follows:

1. Feedstock consumption can be used, applying well known process chemistry (stoichiometry) to calculate the amount of crude hydrogen product produced. This might be considered the "productive" portion of the facilities energy consumption – it yields product. This is a quick and effective means to obtain a reasonable estimate of actual hydrogen production for the facility.

2. Fuel consumption can be used to determine the amount of energy required to provide the process conditions (typically furnace temperature) to allow the feedstock to be converted into product hydrogen. The fuel consumption may be considered the "non-productive" of the facilities total energy consumption.

3. With the hydrogen production estimated from the feedstock consumption (step 1) and the energy required to sustain the conversion process (fuel consumption – step 2), confidential business information regarding the efficiency of the production process and facility design can be determined.

4. After correcting for the energy consumption of the endothermic and exothermic reactions to produce hydrogen (a value that can be calculated from known process chemistry and thermodynamics, and the production quantity of hydrogen from the reported "feedstock consumption" value), the remaining useful energy from fuel consumption provides an estimate of the thermal energy available for subsequent heat recovery, and hence steam production. Steam is a valued second product of hydrogen production and the amount of steam produced and exported provides further insight to the operating costs and revenue of a hydrogen production facility.

The high energy intensity of hydrogen production requires high process efficiency in order to remain competitive in the industry. Differences of as little as 1% in delivered efficiency can swing the economics of which technology or which supplier should be employed. Disclosure of the process information as outlined above creates a clear competitive threat, both for U.S. based production opportunities as well as international opportunities.

Industrial gas companies invest millions of dollars every year in process efficiency improvements in order to remain competitive in a very competitive industry. Any domestic or international competitor who can exploit publically disclosed information and thus short-circuit the discovery and implementation phases of such R&D has expropriated the investment of the actual innovators and gains the benefit at little or no cost. This stifles future innovation – in this case, innovation that leads to greater process efficiency, reduced energy consumption, and reduced greenhouse gas emissions – all stated goals of the EPA climate change program.

Further, disclosure, through back-calculation, of facility production provides actual production data that is not readily available, particularly on a facility by facility basis. U.S. Federal Trade Commission regulations typically preclude such disclosures among competitors due to the risk for such information to be misused in anti-competitive behaviors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 26

Comment: Energy consumption represents the single largest (70-80+%) component of the variable operating costs of hydrogen production. Public disclosure of the carbon content and molecular weight of the fuel and feedstock streams reveals characteristics about the compositional nature of the individual fuel/feedstocks and their sources. While this is no revelation for common primary fuels of commerce (e.g., natural gas), it is a unique characterization of alternative, secondary energy sources. Such compositional characterization allows determination of energy value and hydrogen content (as H2), values which reflect the inherent value of such alternative energy streams as fuel and feedstock, respectively
Since energy is a major component of the facility operating cost, insights into the relative

"value" of individual energy sources would potentially compromise competitive advantages due to superior energy sourcing alternatives. Further, disclosure that provides insight into the range of fuel and feedstock compositional variability reveals insights into the facility's process capability to productively use alternative energy sources – another aspect of potential competitive advantage.

Understanding the potential trade-offs between alternative fuel/feedstock options (based on compositional differences and hence "value" of the unique attributes noted above), particularly when coupled with disclosure of their corresponding consumption, provides insight to competitors and customers regarding a facility's actual operating costs and process capability. Such information can influence the competitive nature of current supply relationships and future business opportunities, both in the US and in foreign markets.

Some fuel and feedstock sourcing options may be considered "disadvantaged fuels:" by-product energy streams that have lesser value than primary fuels of commerce (e.g., natural gas). Alternatively, such secondary energy streams may have varying amounts of hydrogen content (as H2) which, when employed as feedstock, allow for increased product yield without corresponding feedstock consumption and reduced fuel consumption. Disclosure of the carbon content and molecular weight, along with general descriptions of the sources (routinely provided as public information in air permit applications) enables a knowledgeable supplier of the alternative energy source to make a more "informed" assessment of the relative value of the alternative energy source (relative to other available fuels/feedstock choices) and can influence the availability and price a facility may incur.

Similarly, disclosure which reveals the potential advantaged value of alternative energy supplies is a reflection on the relative cost of production and thus informs competitors and customers on the competitive position of a specific facility's supply.

Further, disclosure that provides insight into the range of fuel and feedstock compositional variability reveals insights into the facility's process capability to productively use alternative energy sources. A process/facility design that has incorporated features that allow for the enhanced flexibility to utilize such secondary energy sources represents a potential competitive advantage. Since such operating flexibility can offer opportunities for reduced operating cost, disclosure of this operating flexibility reveals the design advantage. Knowledge of this operating flexibility provides insights relative to both existing production facilities (and their competitive position relative to customers and competitors) as well as indicates advantages in potential process design for future hydrogen supply opportunities in the U.S. and internationally.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs[29]
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 43

Comment: [Subpart P comments:]

- Monthly analyses of the molecular weight of gaseous feedstocks (98.166b6)
- Monthly analyses of the molecular weight of gaseous fuels (98.166b6)
- Monthly analyses of carbon content for feedstocks used in hydrogen production (98.166b5)
- Monthly analyses of carbon content for fuels used in hydrogen production (98.166b5)
- Monthly consumption of feedstocks by type used for hydrogen production (98.166b2)
- Monthly consumption of fuels by type used for hydrogen production (9.166b2)

API supports deferring reporting of these data elements. As discussed [below] and in API's comments submitted September 7, 2010 to Docket EPA–HQ–OAR– 2009–0924 API has indicated that this information is CBI.

Some hydrogen plants are licensed by the hydrogen technology company to the merchant hydrogen producer or refinery, which operate the hydrogen plants required to report under this subpart. Such licenses prohibit the owners and operators of the hydrogen plant from divulging certain process information, such as the quantity of each fuel and feedstock, the quantity of hydrogen and ammonia produced, and the carbon content and molecular weight of fuel and feedstocks. If owners and operators of the hydrogen plants are required to report these data elements as non-CBI, they would be in a no-win situation, having to either risk litigation by the hydrogen technology company for divulging process information, or risk enforcement action by not reporting all required data elements under subpart P.

Another significant concern with the data elements outlined below for Subpart P, is the potential for combining this data with information that is already available in the public forum to derive process and facility capacities. For example, the Oil and Gas Journal reports maximum hydrogen plant throughput information for each refinery in the U.S. If combined with consumption rates and production rates, a competitor could determine a facility's capacity to meet the new fuel specifications and weaknesses could be exploited in the market.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

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[29] The third paragraph of this excerpt starting with "Some hydrogen plants…" is also contained in attachments to comments EPA–HQ–OAR–2010-0964-0023.1, EPA–HQ–OAR–2010-0929-0019.1, EPA-HQ-0929-0024.1, and EPA–HQ–OAR– 2009–0924-0066.1, which is incorporated by reference in these comments.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 9

Comment: Virtually none of the data elements described above are already publicly available. What can be publicly available are general industry design aspects and theoretical yields; the data elements we seek to protect relate to the ACTUAL performance characteristics of the subject facilities.

- General industry knowledge about potential alternate fuels and feedstocks provides information about what might be theoretically possible or is known to have been achieved in the industry. Providing the actual fuel and feedstock characteristics (e.g. carbon content and molecular weight) describes what is actually achievable at a specific facility.
- General industry knowledge about typical process efficiencies provides information about what the potential energy consumption, and hence energy cost, could be for a given process design/configuration. Providing the actual fuel and feedstock consumptions describes what efficiency is actually achievable at a specific facility.
- General industry knowledge of stated nameplate capacity of a facility provides information about what the maximum production might be for that facility. Similarly, aggregated trade association data about total production can yield an overall estimate of capacity utilization. Providing feedstock consumption data that allows actual production to be reliably estimated further describes the *actual process efficiency and capacity utilization* of a *specific* facility.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 10

Comment: In cases where a competitor or customer seeks detailed process efficiency information by obtaining proposals from engineering firms skilled in the science/art of such process design, such disclosures will also be constrained by confidentiality/non-disclosure agreements. Further, additional process design enhancements, discovered and implemented by Air Products, will not be known to the third-party engineering firms and thus cannot be included in their technology offerings in response to a business inquiry from a customer or competitor of a current producer. Public disclosure of the resulting efficiency improvements implemented in our actual operating facilities erodes the competitive position created through Air Products' investment in process analysis and improvement.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 5

Comment: Under §98.160 (Subpart P) of the Mandatory Reporting Rule (MRR), EPA asks for operating data that has been used to calculate the emissions of CO2 and minor combustion by-products, CH4 and N2O.

Air Products considers such data as confidential business information (CBI) and routinely takes measures to claim as CBI and protect such information from public disclosure due to the potential use by competitors and customers to negatively affect our competitive position. The basis for this representation is made below for each of the claimed data elements.

Data Element(s)

- Monthly consumption of fuels, by type, used for hydrogen production (§98.166b2)
- Monthly consumption of feedstocks, by type, used for hydrogen production (§98.166b2)

As discussed above, maximum fuel consumption rates are often included in air permit applications, although such data reflects more generalized operating conditions and provides a more crude approximation of process efficiency. Maximum production rates are similar represented, but do not reflect actual production in any time period. Actual production data is not readily available, particularly on a facility by facility basis. U.S. Federal Trade Commission regulations typically preclude such disclosures among competitors due the risk for such information to be misused in anti-competitive behaviors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 8

Comment: Under §98.160 (Subpart P) of the Mandatory Reporting Rule (MRR), EPA asks for operating data that has been used to calculate the emissions of CO2 and minor combustion by-products, CH4 and N2O.

Air Products considers such data as confidential business information (CBI) and routinely takes measures to claim as CBI and protect such information from public disclosure due to the potential use by competitors and customers to negatively affect our competitive position. The basis for this representation is made below for each of the claimed data elements.

Data Element(s)

- Monthly analyses of carbon content for fuels used for hydrogen production (§98.166b5)
- Monthly analyses of carbon content for feedstocks used for hydrogen production (§98.166b5)
- Monthly analyses of the molecular weight of gaseous fuels (§98.166b6)
- Monthly analyses of the molecular weight of gaseous feedstocks (§98.166b6)

As discussed above, a range of fuel composition may be included in air permit applications, although such representations reflect more generalized operating conditions. Composition of feedstocks is not typically included in air permit applications.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 25

Comment: As discussed above, maximum fuel consumption rates are often included in air permit applications, although such data reflect more generalized operating conditions and provide a more crude approximation of process efficiency. Maximum production rates are similarly represented, but do not reflect actual production in any time period. Actual production data is not readily available, particularly on a facility by facility basis. U.S. Federal Trade Commission regulations typically preclude such disclosures among competitors due the risk for such information to be misused in anti-competitive behaviors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 29

Comment: Virtually none of the data elements described above are already publicly available. What can be publicly available are general industry design aspects and theoretical yields; the data elements we seek to protect relate to the actual performance characteristics of the subject facilities.

General industry knowledge about potential alternate fuels and feedstocks provides information about what might be theoretically possible or is known to have been achieved in the industry. Providing the actual fuel and feedstock characteristics (e.g. carbon content and molecular

weight) describes what is actually achievable at a specific facility.
General industry knowledge about typical process efficiencies provides information about what the potential energy consumption, and hence energy cost, could be for a given process design/configuration. Providing the actual fuel and feedstock consumptions describes what efficiency is actually achievable at a specific facility.
General industry knowledge of stated nameplate capacity of a facility provides information about what the maximum production might be for that facility. Similarly, aggregated trade association data about total production can yield an overall estimate of capacity utilization. Providing feedstock consumption data that allows actual production to be reliably estimated further describes the actual process efficiency and capacity utilization of a specific facility.
In cases where a competitor or customer seeks detailed process efficiency information by obtaining proposals from engineering firms skilled in the science/art of such process design, such disclosures will be constrained by confidentiality/non-disclosure agreements. Further, additional process design enhancements, discovered and implemented by current producers, will not be known to the third-party engineering firms and thus cannot be included in their technology offerings in response to a business inquiry from a customer or competitor of a current producer. Public disclosure of the resulting efficiency improvements implemented in actual operating facilities erodes the competitive position created by existing producers' investment in process analysis and improvement.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

14.0 SUBPART Q

Commenter Name: Kevin M. Dempsey, Vice President, Public Policy and General Counsel
Commenter Affiliation: American Iron and Steel Institute (AISI)
Document Control Number: EPA-HQ-OAR-2010-0964-0035.1
Comment Excerpt Number: 2

Comment: [T]he Proposed Rule would force the public disclosure of the nature, carbon content, and throughput of molten iron, ferrous scrap, flux, carbonaceous materials, steel produced, slag produced, and other process inputs and outputs of steelmaking furnaces that are using the material balance method in 40 CFR §98.173(b)(ii) [assumed reporting requirement citation is actually 98.176(b)]; While two other reporting options exist under Subpart Q, those options do nothing to cure the serious and immediate business confidentiality problems the Proposed Rule would create […]. Such information is central to determining the performance characteristics of our steel, and the raw materials, additives, and processes used by each company to produce steels with those characteristics is critical to the ability of each company to compete and remain economically viable in today's international marketplace.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Frederick T. Harnack, General Manager, Environmental Affairs
Commenter Affiliation: United States Steel Corporation (USS)
Document Control Number: EPA-HQ-OAR-2010-0964-0039
Comment Excerpt Number: 3

Comment: [The commenter supports deferring the following data elements:] **40 CFR part 98, subpart Q sections 98.176e1, 98.176e3, 98.176e4**, inputs to emission calculations include all manner of gaseous, solid and liquid process inputs and outputs and their compositions.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 21

Comment: Dr. Sahu's analysis [the commenter referrs to comment letter Ex 21 for spreadsheet containing comments regarding each data element required for reporting] demonstrates that the data elements EPA seeks to defer are actually either in public view or of no business importance.

Certainly, the industry itself has raised no specific concerns. The comments of the U.S. Steel Corp., for instance, decry EPA's reporting system as a departure from previous practice, and claim some information is "private" but do not cite a single specific data elements.

Nor can they: as Dr. Sahu shows, EPA is not trenching on CBI in this subpart. In particular, Dr.Sahu shows that data on the carbon content of inputs to the iron and steel production process, which are the subpart's primary focus, can readily be calculated from public figures, rendering efforts to protect these inputs unnecessary. As he explains, a reasonably experienced engineer can determine a facility's carbon use rates from reviewing its material safety data sheets to determine which fuels are being used, and estimating fuel use rates based on overall production figures, which are publicly available. As he explains:

Although a detailed mass balance can require multiple inputs and associated carbon contents, it is usually possible to achieve reasonable accuracies by neglecting contributions from smaller carbon input and output streams in the mass balance. Thus, the burden for data element reporting should not be very high. As an example, from an electric arc furnace, the vast majority of the CO2 comes from the addition of direct carbon via coke or coal, the electrode consumption, and the use of any natural gas. Almost all of the carbon ends up as CO2, with small amounts transforming to CO or partitioning to the carbon content of the steel. As a first approximation, converting all input carbon to CO2 provides a reasonable estimate. And, this can be determined from Material Safety Data Sheets (for example, for coal or coke). These are not business secrets. Nor is the carbon content of natural gas a business secret. Thus, only the actual quantities of usage of these needs to be known. A reasonably experienced practitioner can estimate these from

the production rate, knowing the general type of process, which is publicly reported, for example in permits. Thus, deferring reporting of these is meaningless and has no business value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 76

Comment: The reporting of annual production quantities for products (98.176b) should not be deferred because this information has previously been publicly reported. [Commenter references a stack test report, containing production data, submitted by Nucor to the Utah Division of Air Quality as part of its Title V Operating Permit requirements. See Ex. S1: EPA-HQ-OAR-2004-008-0058 Nucor Plymouth, p. 8/86 (pdf). Commenter also references an Electric Arc Furnace Survey response submitted by Gerdau Ameristeel, which contains production data. See S2, p.2/76 (pdf).]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 77

Comment: The reporting of process input and output carbon contents to determine CO2 emissions (98.176e1) should not be deferred because these values (for coal, pet coke, scrap, iron ore, limestone, fluxes, steels, slag, etc.) are generally known from material safety data sheets (MSDSs).

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 78

Comment: The reporting of the annual volume of each type of gaseous and liquid fuel used to determine CO2 emissions (98.176e3) should not be deferred because the information is already publicly available. For instance, this information can be found in utility bills.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 79

Comment: The reporting of the molecular weight of gaseous fuels (98.176e4) should not be deferred because this information is basic chemistry.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 81

Comment: The reporting of the average hourly feed or production rate (98.176f2) should not be deferred because this information has previously been publicly reported. [Commenter references a stack test report, containing production data, submitted by Nucor to the Utah Division of Air Quality as part of its Title V Operating Permit requirements. See Ex. S1: EPA-HQ-OAR-2004-008-0058 Nucor Plymouth, p. 8/86 (pdf).]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 82

Comment: The reporting of a site-specific emission factor (98.176f3) should not be deferred because this information is derived from calculations using direct emissions data and/or data that has previously been reported.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 83

Comment: The reporting of the annual feed or production rate used to estimate annual CO2 emissions (98.176f4) should not be deferred because this information has previously been publicly reported. [Commenter references a stack test report, containing production data, submitted by Nucor to the Utah Division of Air Quality as part of its Title V Operating Permit requirements. See Ex. S1: EPA-HQ-OAR-2004-008-0058 Nucor Plymouth, p. 8/86 (pdf).]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 160

Comment: For Subpart Q, the unit identification number should not be CBI because this information is available in Title V Permits or other permits.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 84

Comment: The reporting of the annual amount of coal charged to the coke ovens (98.176g) should not be deferred because this information can be ascertained by tracking deliveries (trains, trucks, etc.) and by making reasonable assumptions.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

15.0 SUBPART R

Commenter Name: Robert N. Steinwurtzel, Counsel for the Association of Battery Recyclers, Inc.[30]
Commenter Affiliation: Association of Battery Recyclers, Inc.
Document Control Number: EPA-HQ-OAR-2008-0508-0660.1
Comment Excerpt Number: 1

Comment: To the extent facilities in the Lead Production sector remain subject to the reporting rule, EPA's reporting requirements include information that the industry considers to be confidential business information ("CBI"). Among the information that may be required to be reported by the Lead Production sector include:

1. Maximum rated heat input of the unit (boilers, combustion turbines, engines, and process heaters only);
2. Each type of fuel combusted in the unit during the report year;
3. Calculated CO_2, CH_4, and N_2O emissions for each type of fuel combusted;
4. The method used to calculate the CO_2 emissions for each type of fuel combusted (e.g., Part 75, or the Tier 1 or 2 calculation methodology);
5. If applicable, an indication of the monitoring and reporting methodology from Part 75 used to quantify CO_2 emissions *(e.g.,* CEMS, Appendix G, Low Mass Emissions methodology);
6. Calculated CO_2 emissions from sorbent (if any);
7. The total GHG emissions from the unit for the reporting year, i.e., the sum of the CO2, CH_4, and N_2O emissions for all fuel types, expressed in mtCO_2e;
8. Total annual CO_2emissions from each smelting furnace operated (metric tons and the method used to estimate emissions);
9. Facility lead product production capacity (metric tons);
10. Annual facility production quantity (metric tons);
11. Number of facility operating hours in calendar year; and
12. For each carbon-containing input material consumed or used (other than fuel), report: (1) Annual material quantity (in metric tons); and (2) Annual weighted average carbon content determined for material and the method used for the determination (e.g., supplier provided information, analyses of representative samples collected).

Aside from the calculated emissions, the rest of the information requested may be considered CBI. In particular, ABR members have considered and have treated the production information as CBI. None of this information is currently required to be reported to EPA, and its release will result in harm to ABR members' competitive position.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the

[30] This comment is incorporated by reference in comment letter DCN: EPA-HQ-OAR-0964-0019.

data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Robert N. Steinwurtzel, Counsel, Baker & Hostetler LLP
Commenter Affiliation: Association of Battery Recyclers, Inc. (ABR)
Document Control Number: EPA-HQ-OAR-2010-0964-0019
Comment Excerpt Number: 7

Comment: This grouping includes all of the data elements presented in Table 1 which are subject to reporting under Subpart R of the GHG Reporting Rule and the data required to be reported pursuant to 40 CFR §98.36(e)(2)(viii)(A).

The quantities and characteristics of raw materials used and production levels, both facility-wide and unit-by-unit, relate mainly to economic performance and competitive interests. Knowledge of this information can thus provide the means for competitors to determine plant and unit efficiencies, production levels, overall cost effectiveness, and future operational plans.

Unit-specific data related to competitive parameters include raw material consumed and amounts of feedstocks, unit throughput, production rates, and capacity. As in any business, members of the secondary lead recycling industry monitor the performance of competing facilities. Similar to fuels, the raw materials and feedstocks used are commodities and prices are known from general commerce. However, at present, the detailed data elements of raw material consumed and amount of feedstock broken down by facility and unit are not publicly disseminated. Under the EPA proposal, these data elements would be released with no protection and could be used by other industry participants. By "stitching together" or "reverse engineering" production and energy data over a period of time, a competitor could determine cost, price, and operating margin as well as operational plans and scheduling information.

The impacts that public disclosure of these data elements poses to the secondary lead recycling industry extend beyond the United States. U.S. manufacturers will be placed at an even greater competitive disadvantage with foreign competitors that are not subject to EPA rules. CBI practices at foreign locations are generally much more protective of process information than what EPA has proposed under the GHG Reporting Rule. Foreign competitors will therefore be able to conduct competitive intelligence of U.S. facilities using the sensitive data elements presented in Table 1, while U.S. industry participants have no chance of obtaining the same types of information on foreign competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert N. Steinwurtzel, Counsel, Baker & Hostetler LLP
Commenter Affiliation: Association of Battery Recyclers, Inc. (ABR)

Document Control Number: EPA-HQ-OAR-2010-0964-0019
Comment Excerpt Number: 9

Comment: Secondary lead recycling businesses guard the confidentiality of their production and process information which includes all of the data elements presented in Table 1 [See comment letter for Table 1]. This information is not shared with competitors nor is it released to any external party unless required by statute or regulation, and then only when CBI protections are observed. To date, this information has consistently been treated by EPA and other Federal and State agencies as CBI.

The ABR and its members go to great lengths to maintain the confidentiality of the information presented in Table 1. As a trade association, the ABR has developed and strictly adheres to its own set of antitrust guidelines which prohibit the sharing of such sensitive business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

16.0 SUBPART S

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 9

Comment: Lime manufacturing is a relatively small but concentrated and extremely competitive industry. Therefore, MLCO maintains competitively sensitive information/data as trade secret and proprietary business information which qualifies as Confidential Business Information ("CBI")"'. This CBI, if made public, could readily influence production, marketing, and pricing decisions within the lime industry, which would have a direct negative impact on MLCO' s business interests. In recent years, there has been increasing consolidation in the domestic lime industry and large companies and foreign entrants have used sensitive market information to put smaller companies at a competitive disadvantage. This conduct directly harms and disadvantages consumers over the long-run as they will have fewer choices of suppliers. Foreign market entrants who import lime are also not subject to full USEPA regulation, which provides them with the competitive advantage of avoiding the costs and requirements of compliance with U.S. environmental laws and regulations.

In order to enable MLCO to compete for the long term, the company has made substantial capital investments in new technologies and construction projects that both significantly reduce its emissions and improve its cost competitiveness. Mississippi Lime understands the regulatory goal of addressing GHG issues through statistical reporting and analysis to support greenhouse gas emissions calculations. However, the CBI Proposal threatens to penalize compliant companies by exposing their CBI to domestic and foreign competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 1

Comment: The lime produced by each company, and even each facility, is unique. Critical variables include the source of limestone and type of limestone (e.g., high-calcium versus dolomite), the needs of the customer (e.g., lime for steel manufacturing versus soil stabilization versus water treatment), and the "recipe" used by each lime plant to produce certain performance characteristics (e.g., calcination temperature, length of calcination, fuel type, available CaO content, sulfur content, etc.). Although general information about the calcination process is publicly available, the details of each plant's capacity, the specific "recipe" it uses, and the specific fuel mix it uses are CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 1

Comment: As relevant to the USEPA's call for additional information, MLCO emphasizes that the lime industry is highly concentrated, has significant entry barriers, involves some commodity-type, homogenous products and low elasticity of demand, all of which, according to the Federal Trade Commission ("FTC"), may make it easier for competitors to either tacitly or explicitly manipulate market pricing, if the types of confidential data at issue here are readily publicly available. These conditions contribute to the need for heightened sensitivity to competitive effects of release of proprietary and competitively sensitive information. Mandating release of CBI, including certain inputs to emission equations, could readily influence production, marketing, and pricing / cost position decisions within the lime industry, which would have a direct negative impact on MLCO's business interests, favor foreign producers, and disadvantage consumers. These issues are particularly acute for a private company, like MLCO, that competes with large multi-national firms.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA also appreciates the comments from the FTC. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into

consideration in determining the likelihood of each input to cause substantial competitive harm if released.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 2

Comment: As requested by USEPA, *Table 1* [See comment for table listing data elements required for reporting under 98.196(b)] contains specific data elements from 40 CFR Part 98 Subpart S used as inputs to emission equations that MLCO considers CBI, and that would cause competitive harm if publicly disclosed. Data elements within the same rule citation that MLCO does not consider CBI are also included. MLCO closely guards production throughput information, including the monthly amount, and weight / mass, of each lime product produced/sold, monthly amount of calcined byproduct/waste sold, annual calcined byproduct/waste not sold, and the annual lime production capacity of each facility within the company. [Footnote: The maximum capacity of all facility processes, potential production schedules, maximum yearly design rates, emission factors and their sources, control efficiencies, and hours of operation are also considered CBI by MLCO.] If a competitor obtained this information, it could readily be used to gain unfair leverage in the marketplace. Monthly production information can be used to determine annual, actual production quantities and production efficiencies. This actual data can then be compared to the annual, potential production capacity of the facility, and a competitor could determine the degree of facility utilization. This knowledge can then be used to modulate bid pricing and customer negotiations and contracts. Moreover, with other means of verification available, public disclosure of this information would be meaningless to the public in general. Sophisticated competitors, however, would welcome access to this otherwise unavailable information as competitive intelligence to be used to MLCO's disadvantage, or the detriment of consumers.

Monthly or annual emission factors concerning lime product produced/sold, calcined byproduct/waste sold, and calcined byproduct/waste not sold provide competitors with a means to "back-calculate" or "reverse engineer" potential and actual throughput, as well as specific cost estimation which are highly sensitive information. Emission factors can be combined with emissions data (e.g., tons/yr of CO2) to determine either the actual or potential facility production capacity. This information is secret for good reason. Neither the FTC nor the Antitrust Division of the Department of Justice would permit competitors to exchange this sort of information. Competitors cannot justify exchange of current capacity information of this nature, within the bounds of the antitrust laws, as confirmed in the FTC's comments.

Additionally, monthly or annual results of chemical composition of each lime product produced/sold, calcined byproduct/waste sold, and calcined byproduct/waste not sold are considered CBI by MLCO as such results are utilized in calculating aforementioned emission factors, which, if publicly available can be used for competitive harm to MLCO. The chemical composition of the products produced/sold and efficiencies of use of byproduct/ waste materials sold and not sold are at the heart of competition between firms in the lime industry, due to

customer quality specifications and specific, even confidential end-use purposes. Compulsory public disclosure will cause harm to MLCO if competitors obtained access to specific analytical information; thereby enabling them to understand *detailed specifics* of MLCO's products and byproducts and potential applications for them, as well as enabling better cost estimation. As such, we believe that release of this specific level of current detail is unnecessary for USEPA verification and not related to transparency either.

While *general* product quality information is publicly available on MLCO's website, this only provides customers, potential customers, and competitors with a sense of the range of quality of MLCO's saleable materials. The *specific* product quality data sought here would enable competitors to manipulate their production capabilities to more closely match MLCO's product quality, and/or enable competitors to target material end-users to under-cut established sales and marketing contracts based on confidential, and otherwise unobtainable, business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA also appreciates the comments from the FTC. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into consideration in determining the likelihood of each input to cause substantial competitive harm if released.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 14

Comment: MLCO closely guards production throughput information, including the monthly amount of each lime product produced/sold, calcined byproduct/waste sold, calcined byproduct/waste not sold, and the annual lime production capacity of each facility within the company. [Footnote: The maximum capacity of all facility processes, potential production schedules, maximum yearly design rates, emission factors, and their sources, control efficiencies, and hours of operation are also considered CBI by MLCO]. If a competitor obtained this information, it could be used to gain unfair leverage in the marketplace. Monthly production information can be used to determine annual, actual production quantities and production efficiencies. This actual data can then be compared to the annual, potential production capacity of the facility, and a competitor could determine the degree of facility utilization. This knowledge can then be used to modulate pricing accordingly when bidding customer contracts. Customer contract bidding should be free from competitor access to this type of CBI, which otherwise would not be available.

Allowing the highest maximum rated heat input of any unit, or any unit in a reporting group, to be public information can also negatively impact fair competition in the lime industry. Given published MMBTU ratings, one can assume a default production rate of MMBTU/ton of lime produced, and kiln capacities correspondingly determined. Again, this insight can be utilized by competitors to understand facility utilization and unfairly gain market advantage.

Publicly available fuel-related information can also provide competitors with information influencing production, marketing, and pricing decisions: The type of fuel combusted in a unit or group of aggregated units during the reporting year, as well as the quantity of each type of fuel combusted (monthly or annually) in the unit/units, provides competitors with knowledge of fuel sources, amount of fuel consumed, and production capacities. Such information can be utilized to determine fuel costs, which can be compared to production capacities for estimating operating efficiencies of a unit or of a facility. Once again, this provides a competitor with access to information that it could not legally obtain by any other means, which could be used to disadvantage MLCO in the marketplace.

Notably, it would be illegal *per se* under the antitrust laws for lime producers to share this type of data and adjust their pricing or output. 15 U.S.C. §1 . MLCO maintains an effective antitrust compliance program which, in part, is designed to prevent release of competitively sensitive information. Public release of the extensive data envisioned by the CBI Proposal would undermine these efforts. Further, while MLCO would not participate in any effort to restrain trade, release of the data heightens the risk in a concentrated market that others might engage in collusion. Absent the USEPA compelled release of this information, such an effort would be much more difficult to arrange and police. Accordingly, MLCO believes firmly that there are strong reasons to avoid release of CBI related to antitrust compliance and the risk of anticompetitive effects.

Monthly or annual emission factors concerning lime product produced/sold, calcined byproduct/waste sold, calcined byproduct/waste not sold provide competitors with a means to "back-calculate" potential and actual throughput, which is highly sensitive information. Emission factors can be combined with emissions data (e.g., tons/yr) to determine either the actual or potential facility production capacity. This information is secret, and it would again violate bedrock antitrust laws for competitors to exchange current capacity information of this nature.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 16

Comment: MLCO can envision no events or circumstances in which the identified CBI would lose its degree of sensitivity, either over the life of the company or with respect to the competitive nature of the lime industry. In fact, with the greater influx of foreign competition, the urgency to protect CBI and maintain a secure position within the industry has only increased in importance. In essence, MLCO protects basic operating data intrinsic to lime manufacturing, fundamental to the operation of the facility, and necessary for true, honest market competition and consumer pricing.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 8

Comment: ***Annual amount of calcined lime byproduct/waste that is not sold, by type (tons)*** – This information gives further insights into how efficiently a lime plant operates, how much the plant is burdened with unsold byproducts/waste on site, and how readily it can find markets for these materials. This could also inform potential customers who are interested in purchasing byproduct that they could acquire it at very low cost from the lime company, placing the company at a tremendous bargaining disadvantage.

[The commenter supports deferring the following data element citation:]

40 CFR § 98.196(b)(11)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 6

Comment: ***Annual chemical composition test analysis for each type of byproduct/waste not sold*** – The specific oxide content of a plant's lime byproduct/waste not sold can give critical information about why it was not sold (e.g., low oxide content, which makes the lime byproduct/waste less saleable). Information on the oxide content of the byproduct/waste also reveals production cost information to competitors.

[The commenter supports deferring the following data element citation:]

40 CFR § 98.196(b)(6)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)

Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 7

Comment: ***Monthly amount of lime product by type sold (tons)*** – Revealing monthly sales data tells competitors about a plant's capacity, product inventories, limestone use, fuel use, and its ability to meet consumer demand (e.g., a plant that is only able to sell a limited monthly amount of lime will not be able to successfully bid on a large requirements contract with a municipal water treatment system). Moreover, this information would tell competitors about a plant's financial situation (e.g., successive months of poor sales would raise questions about cash flow and a plant's ability to secure credit).

[The commenter supports deferring the following data element citation:]

40 CFR § 98.196(b)(8)

Monthly weight or mass of each lime type produced (tons) – In the same way as section 196(b)(8), this information gives competitors insights into the monthly production of the plant, as opposed to what is sold or unsold each month.

[The commenter supports deferring the following data element citation:]

40 CFR § 98.196(b)(12)

Monthly amount of calcined lime byproduct/waste by type sold (tons) – Again, revealing monthly data about byproducts/waste sold tells competitors about a plant's capacity, product inventories, limestone use, fuel use, and its ability to meet consumer demand, and perhaps, who its customers might be (e.g., the soil stabilization market is seasonal – an increase in sales in spring and summer could reveal sales to construction projects). The amount of byproduct sold reveals important information about the quality, sizing and calcination process, because the amount of byproduct sold would indicate the amount of fines generated in the process and the relative yield per ton of stone.

[The commenter supports deferring the following data element citation:]

40 CFR § 98.196(b)(10)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 9

Comment: Lime companies take care to protect production throughput information, as well as specific data about the fuels they combust. This information is not shared between lime

companies. Also, when detailed plant production information is submitted to the states, it is with the understanding that it will not be disclosed to the public. [The commenter cites EPA's Analysis of NEI for SIC Codes 327410 and 212312 conducted on August 24, 2010 to identify the states that do and do not treat throughput data as "business sensitive."]To our knowledge, the specific calcination "recipe" used by any given plant (limestone source, kiln temperature, "roasting" time, fuel characteristics) is not specified in a permit or other document available for public viewing. Likewise, information such as a plant's cost per unit of lime produced and its efficiency are closely guarded CBI and therefore are not given to the public.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 18

Comment: Neither Canada nor the European Union Requires Lime Plants to Disclose GHG-related Throughput Data . The preamble to the 2010 CBI rule mentions that some commenters stated that release of throughput data would be consistent with other programs, including the European Trading System. NLA has contacted our counterparts in Europe and learned this is not the case for the lime industry. Only plant-wide total GHG emissions are disclosed under the ETS. [The commenter writes that lime plants are allowed to provide the details of the GHG emissions calculation in the EU ETS, but the data are not accessible by public record. The commenter cites different regulations governing the data collected]

Similarly, Environment Canada discloses to the public only total GHG emissions for lime plants. The reason for this is that the Canadian government afforded each lime company the opportunity to explain why reporting throughput data would cause them economic harm.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 19

Comment: The USGS and EIA Safeguard Lime Production Data, as Well as Fuel Consumption Information. Each year, each lime plant in the United States submits lime production data to the National Minerals Information Center, U.S. Geological Survey. The form each plant fills out clearly notes that the information submitted will be treated in confidence by the Department of Interior, except that it may be disclosed to the Department of Defense or to the Congress upon

official request for appropriate purposes. Similarly, each quarter, most lime plants submit to the Energy Information Administration information on the quantity and other characteristics (heat content) of the coal they consume. Again, the form that each plant fills out states that the information (i.e., throughput data) will be treated in confidence.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 20

Comment: The Preamble to the 2010 Rule Illustrates How Disclosure of Throughput Data Would Harm Legitimate Business Confidentiality Concerns. EPA's discussion of how public disclosure of throughput data can be harmful to the competitive position of businesses is intended to defend its exclusion from the proposed generic non-CBI determination for throughput (and capacity data) that are not inputs to GHG equations (preamble, at pages 39,115-160). However, EPA's discussion also ably makes the point that releasing such data would be detrimental to the operational and marketing strategies of all reporting facilities, not just those sectors for which GHG calculations do not require their use.

The excerpts below from EPA's preamble have been modified to put them in the context of a lime plant. However, as EPA has done, the argument could be made for most manufacturing plants.

Lime and LKD (lime kiln dust) production/sales data & production capacity

The disclosure of annual production quantities of (e.g., lime, lime byproducts), used in conjunction with data related to capacity, provides insight to a firm's operational strengths and weaknesses. Competitors could determine at what percent capacity a firm is operating, which can reveal information on the financial and competitive strength of the firm. For example, it could reveal that a manufacturer is operating well below capacity and likely experiencing financial difficulties. Having such information could allow competitors to narrow the competition by adjusting their prices to the further detriment of the reporting company, or to formulate other competitive strategies or corporate acquisition strategies to the detriment of the reporting company. Having information on the percent of capacity at which a firm is operating could also reveal whether a manufacturer has existing capacity available to take on new customers in a growing market or is already at their maximum production and would need to invest capital to expand capacity in order to produce more. Having such information could give competitors insights to make competitive decisions on expanding their own production rates or altering their pricing strategies to the detriment of the reporting company. In particular, we note that small companies operating with constrained operating margins will be put at a great disadvantage vis-à-vis their larger competitors. Those competitors can act on this information to lower prices and drive the smaller companies from the market.

The disclosure of annual byproducts sold and not sold—(e.g., LKD sold, not sold) provide insight to a firm's market strength and position. Competitors could use production data to gain a competitive advantage over a firm by better approximating a firm's market share. For example, annual production data (including byproducts produced and sold and byproducts produced and not sold) may reveal confidential information related to rapid growth or decline in market share, customer base, and marketing strategies. It might enable firms to tell which of their competitors won a contract/new customer they competed for. This could substantially harm the firm's competitive position because the information could enable competitors to devise strategies to steal specific customers or even key employees. Changes in the mix of products produced (e.g., lime, lime byproducts), could reveal marketing strategies. In many cases, an accurate estimate of the market position of a firm is difficult to procure, and the disclosure of such information through Part 98 could lead to distortions in the market and could expose reporting parties to disadvantageous market conditions. We note that this information, along with production capacity information, would be particularly useful to foreign competitors and manufacturers of competing products, which may have no similar disclosure requirements.

Information about the chemical composition of products (e.g., percentage of calcium oxide or magnesium oxide) may allow competitors to reasonably infer the purity of feedstocks or raw materials (e.g., limestone) consumed. This may enable competitors to devise strategies to compete for resources and harm the competitive position of reporting entities by otherwise

Fuel consumption

The disclosure of the amount of coal (or other fuel) consumed could provide insight into a facility's operational strengths and weaknesses. For example, information about the coal's quantities and composition could reveal a firm's suppliers and sourcing strategies. Among other things, competitors could use this information to create new strategies to compete for coal and to obtain similar production cost structures.

If in addition to coal consumption, production quantities data are also released under Part 98, competitors could use the combination of production and coal consumption data to expose sensitive information such as operating efficiencies (amount of product produced per unit of coal consumed) and allow competitors to infer production costs and pricing structures. For example, disclosing the annual amount of coal purchased, in combination with other production data, may reveal a facility's operating efficiency. Competitors could use such information to steal market share by undercutting a firm's pricing structure. Again, we note that small businesses would be put at a particular competitive disadvantage when compared to their larger counterparts.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 6

Comment: The data elements that are used in emission equations identified in these comments as CBI are typically not available from any public source or ascertainable by any legal means other than compulsory access to internal company information. There are *assumed* fuel efficiency data and emission factor data for process heaters and kilns that can be obtained from equipment manufacturer websites and from the USEPA Factor Information Retrieval (FIRE) and AP-42 databases. However, actual fuel quality and efficiency data, production data, emission factor data, product and byproduct analytical data, and sales data are not published in any form nor voluntarily disclosed by MLCO.

1. State Agency Treatment of Data Elements Claimed as CBI

MLCO works diligently with state environmental regulatory agencies — including the Missouri Department of Natural Resources, the Kentucky Department for Environmental Protection, the South Carolina Department of Health & Environmental Control, the West Virginia Department of Environmental Protection, and the Mississippi Department of Environmental Quality — to establish and maintain the confidentiality of data/information compulsorily provided to the states in which MLCO facilities are located. The states have afforded CBI status to data submitted and justified as CBI by MLCO under the state CBI statutes. Appendix 2 of MLCO's initial comments to USEPA concerning CBI matters (attached as Exh. 1) outlines in detail the extensive justification that has been made to the appropriate state agencies to ensure CBI protection of process throughputs (maximum or actual), emission factors, data utilized in the calculation of emission factors, emission factor sources/references/descriptions, control device efficiency, data utilized in calculation of control efficiencies, process operating times (e.g., hours, percent), process efficiencies, fuel data, fuel/raw material/product analytical data, and process flow diagrams and engineering drawings.

2. Federal Agency Treatment of Data Elements Claimed as CBI

The United States Department of Energy ("DOE") requires disclosure of quarterly fuel quantity and quality data and related information. MLCO claims that information is CBI, and the DOE agrees and affords it CBI protection. Additionally, the USEPA Office of Pollution Prevention and Toxics ("OPPT") requires disclosure of chemical manufacturing information, including production volumes. This data is also claimed as CBI by MLCO, and the USEPA-OPPT agrees and affords it CBI protection.

The United States Geological Survey (USGS) Minerals Information Division requires annual disclosure of a variety of production and sales data elements. MLCO claims this information is CBI, and the USGS recognizes that this data is highly sensitive, and as such, affords it CBI protection. Although statistics concerning the lime industry and related production information are publicly available on the USGS website, the data is extensively aggregated and no plant- or company-specific data may be accessed.

The examples of how sensitive business information is treated by sister federal departments and departments inside the USEPA itself, is instructive on why these forms of CBI are important as well as the virtue of consistency across and within federal agencies with jurisdiction. As described in MLCO's initial comments to USEPA, the company objects to forced public disclosure of critical, strategic information. And, certain of the inputs used in emission

calculations embodies — as discussed above —competitively significant information or proprietary data that normally has been treated as CBI by state authorities, other federal agencies, and indeed, the USEPA. Mandatory public release of such data threatens substantial, competitive harm to MLCO without any corresponding or superior benefit to GHGRP compliance.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 5

Comment: In Subpart S of Part 98, deferred inputs for lime produced in lime kilns could also provide critical information to competitors:

Monthly chemical composition test analysis for each lime type and calcined byproduct/waste sold – The specific oxide content of a plant's lime product (as well as byproducts/wastes sold) can help reveal the lime's suitability for varying uses (e.g., steelmaking, water treatment versus soil stabilization), and into what markets it can be sold in. Although a competitor could choose to purchase a plant's lime and test the oxide content, it would be very difficult for a competitor to obtain and test representative samples on a monthly basis – which would be necessary to replicate this information.

40 CFR § 98.196(b)(5)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 13

Comment: In general, MLCO treats the following types/categories of information, provided non-confidential treatment under the GHGRP, as CBI.

Monthly amount of lime product sold, by type.

> [. . .]other data for individual units, processes, activities, and operations as specified in the "data reporting requirements" section of each applicable Subpart.
>
> [. . .]Fuel combusted in the units during the reporting year.

[. . .]Monthly amount of lime byproduct/waste sold.

[. . .]Annual amount of lime byproduct/waste NOT sold.

Annual results of chemical composition analysis of each type of lime byproduct/waste NOT sold.

Monthly emission factors for each sold byproduct/waste by lime type.

The most destructive threat is the release of the combination of production data and fuel usage. MLCO takes extraordinary precautions to maintain the secrecy of this information. Even with its own industry association, MLCO has rounded up and at times overstated its numbers, disclosed only on an aggregated confidential basis, and consequently paid higher dues—a premium to protect its confidential production data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

17.0 SUBPART V

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 9

Comment: TFI believes that all of the Subpart V inputs to emission equations set forth in Table 3 should be considered confidential business information by EPA and not available for public disclosure. Many TFI members keep this information as confidential in their normal course of business. Providing production data (P_t, $P_{a,t,N}$, P, C_{N20}, Q, and n) and abatement-related information (DF, DF_1, DF_2, DF_N, $AF_{t,N}$, AF, AF_1, AF_2, AF_N, EF_{N20t}, and FC_N) on a unit-specific basis as required by the Mandatory Greenhouse Gas Reporting Rule permits a competitor to obtain detailed information relative to the number and type of nitric acid trains at a facility, the specific details of the type of nitrous oxide abatement used and efficiency, and full details of any nitrous oxide stack tests performed (including detailed production and ammonia consumption information). These data, when used in concert with the information provided in Subparts C and G, will enable a competitor to create an accurate estimate of a facility's cost structure and operating efficiencies. By providing precise data, competitors will be able to benchmark their nitric acid process against a reported U.S. plant's process. Knowing that a unit is more efficient provides information to competitors to conduct specific research of a company's purchases and licensing contractors. In most cases, the modifications to a nitric acid plant to make it competitive are not patentable and driven primarily by the experience of the company operating the unit. Thus, it is critical to [sic] these data elements from disclosure.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Burl Ackerman, Environmental Engineering Manager
Commenter Affiliation: J. R. Simplot Company
Document Control Number: EPA-HQ-OAR-2010-0929-0028.1
Comment Excerpt Number: 3

Comment: Simplot recommends the following inputs be considered confidential business information.

Subpart V — Nitric Acid
98.226(d)
98.226(e)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 16

Comment: The data elements in each subpart that are considered sensitive and could cause harm are too numerous to list. Some of the specific data elements that EPA proposed to treat as non-confidential "emissions related" information in its December 27, 2010 Notice of Proposed Rulemaking[31] include data on production and throughput such as "anode consumption" – 98.66(e)(1); "amount of each fluorinated GHG consumed for each recipe – 98.96(k); and "mass of spent liquor solids combusted" – 98.276(c). Some of the specific data elements for throughput include "adipic acid production" - 98.56(b) and (c), and annual production of pulp and or paper products produced" § §98.276(k), and "nitric acid production" - 98.226(c), (d), and (e). Other examples of the sensitive information for a single manufacturing source category (Subpart E for Adipic Acid Manufacturing) are shown in Attachment 1 [provided in the commenter's letter].

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data

[31] EPA notes that our proposed determination that inputs to equations are emissions data was proposed in the July 7, 2010 CBI proposal, not in the December 27, 2010 deferral proposal.

elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 10

Comment: Although some of these data elements may already be publicly available, as discussed above, these data elements should nonetheless be protected from public disclosure because release of the data elements, in the aggregate, will allow competitors to benchmark their nitric acid process against a reported U.S. plant's process. Knowing that a unit is more efficient provides information to competitors to conduct specific research of a company's purchases and licensing contractors. In most cases, the modifications to a nitric acid plant to make it competitive are not patentable and driven primarily by the experience of the company operating the unit.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Catharine A. Fitzsimmons, Chief Air Quality Bureau
Commenter Affiliation: Iowa Department of Natural Resources (DNR)
Document Control Number: EPA-HQ-OAR-2010-0929-0014.1
Comment Excerpt Number: 2A

Comment: GHG emissions cannot be verified without knowing the inputs to the equations.

It is critical that EPA, State/Local/Tribal air agencies, and the public have all the information needed to verify reported GHG emissions from sources that do not use continuous emission monitors (CEMS). In many sectors, sources will now report only the total GHG emissions from a process, while reporting of the data elements used to calculate the emissions is deferred. For example, in 40 CFR 98 Subpart V – Nitric Acid Production, a source may develop a source-specific emission factor from a performance test to calculate N_2O emissions. However, reporting of the source-specific emission factor [98.226(m)(1)], production rate during the test [98.226(m)(3)], N_2O concentration during the test [98.226(m)(4)], flow rate during the test [98.226(m)(5)], and number of test runs performed [98.226(m)(6)] is deferred. This provides no mechanism for EPA, State/Local/Tribal air agencies, or the public to verify the reported GHG emissions.

Response: While today's action defers reporting of data such as those the commenter notes, it does not change the requirement that these data be retained for recordkeeping purposes. Subpart V, like other subparts to the rule, has also prescribed monitoring and QA/QC procedures to ensure greater accuracy and consistency in data used collected, applied in equations, and

ultimately reported to EPA. For most key data parameters, facilities are required to follow procedures and specific methods for conducting performance tests and collecting data (e.g. production) that have been reviewed and tested by consensus organizations, such as the American Society for Testing and Materials (ASTM). While other publicly available data does not replace site-specific emission factors that facilities are collecting, EPA has researched other interim sources of data that are publicly available to assist in development of interim verification protocols for industries such as nitric acid production. EPA can perform some statistical analyses for these sectors by comparing reported emissions across facilities with similar production technologies, estimate emissions for reasonable ranges based on default emission factors developed by the IPCC guidelines for different nitric acid technologies. In addition, some information is also published from other GHG management programs in the U.S. and in Europe, where similar technologies are being employed to produce nitric acid, regarding emission rates from nitric acid plants and application of different primary, secondary, and tertiary abatement technologies that can be used to support verification. For further information concerning data verification during the deferral period, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.

18.0 SUBPART W

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 25

Comment: Susan Harvey, an oil and gas expert with decades of experience in the industry and in environmental compliance, reviewed the industry's claims for confidentiality under subpart W. Her report and accompanying documentation are attached and incorporated by reference [See docket for copy of attachments]. Ms. Harvey's report collects literally dozens of examples where industry already publicly discloses information it now seeks to protect as CBI. Once again, as Ms. Harvey compellingly demonstrates, industry demands for protection are groundless.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 29

Comment: The total number of source operating hours in the reporting year.

This data element should be CBI. This data can indicate the reliability and utilization of a unit or process. Operational constraints could be revealed where a unit operates at or near continuously.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 154

Comment: State oil and gas commissions publish significant amounts of information on oil and gas production operations. As a result, API has fewer confidentiality concerns for onshore oil and gas production operations. Rather than the detailed tables provided previously for other GHGRP subpart, API wishes to convey a few key messages regarding CBI for onshore oil and gas production. Post-flowback flaring/venting volumes could, if publicly available, cause competitive harm, especially if the public can obtain localized data on a short term interval basis (for example, a single well in a new play on a daily or weekly basis). The success of a well, and of a particular play (especially in exploratory areas), could be inferred if detailed data is provided to the public and if that data isn't already publicly available (for example - wells completed in December and reported to EPA in March the following year). The confidentiality concerns associated with this information are related to the timing of releasing this information to the public. The information is most sensitive if it is made available during the exploration or early production stages of a producing area.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

19.0 SUBPART X

Commenter Name: Greg L. Johnson, Counsel
Commenter Affiliation: International Carbon Black Association (ICBA)
Document Control Number: EPA-HQ-OAR-2010-0964-0010.1
Comment Excerpt Number: 2

Comment: International Carbon Black Association (ICBA) member companies have taken great care to keep feedstock and production quantity data confidential. For example, even though the ICBA has annually provided production quantity data to the U.S. EPA's annual report on GHG Emissions and Sinks, the data has been provided on an industry-wide basis, with individual company data compiled into industry-wide figures by the ICBA's counsel under the confidentiality protections of the attorney-client privilege. Individual company production and feedstock quantity data are among the topics prohibited from discussion or disclosure by ICBA members because of the potential antitrust implications. Disclosure of production and feedstock quantity data has substantial competitive effects for the carbon black industry.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 31

Comment: The material balance compliance approach requires the input of extensive process data such as that related to feed rates and production volumes, among other data. Companies consider and treat this data as confidential because its public disclosure can provide competitors, feedstock suppliers and customers insight into the company's operations – from raw material needs, to inventories, to production capacity – fundamentally disadvantaging US manufacturers subject to Subpart X in what is increasingly a global marketplace.[I]ndustry does not object to submitting material balance information to the EPA provided it is held by EPA as CBI. However, we strongly object to its release to the public.

Additional specific information identifying how public availability of the emission equation data inputs that make up material balances will cause harm to the reporting company include: Reporting of raw material usage and production rates will put the reporting company at a severe competitive disadvantage because it can be used to:

- Assess the overall efficiency and capabilities of a given petrochemical process;
- Determine a company's cost basis and pricing structure; and
- Identify the limits of our feedstock flexibility.

Disclosing material balance information can provide competitors these same insights into a company's derivative products not subject to this rule.

The public availability of this information will allow feedstock suppliers to evaluate feedstock demand fluctuations and set prices accordingly.

Similarly, a company's customers will undoubtedly scrutinize these data to identify periods of high production volumes during which they may be able to purchase products at reduced prices. Detailing of raw materials and product streams will make vulnerable industry's proprietary facility designs unrelated to the desired outcomes of GHG emission reporting and again negatively impacting the reporting company's competitive advantages.

Release of this information may further adversely impact publicly traded companies as Wall Street analysts and the financial media scrutinize these data for trading purposes. That this occurs is exemplified by the fact that petrochemical trade journals constantly monitor state and EPA release report filings to evaluate whether release events will adversely impact the supply of a given petrochemical.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Greg L. Johnson, Counsel
Commenter Affiliation: International Carbon Black Association (ICBA)
Document Control Number: EPA-HQ-OAR-2010-0964-0010.1
Comment Excerpt Number: 1

Comment: Production and Feedstock Quantity Data Is Extremely Sensitive Business Information and Must Be Kept Confidential. Here, production and feedstock quantity data for the carbon black production process would be publically released once reported to EPA. This public release would be harmful to the carbon black industry because the U.S. and global markets consist of a small number of competitors. Further, these competitors use similar basic production technology. Because of these two factors, price is a main differentiator between competitors. The public release of production and feedstock quantity information would give this limited group of competitors more insight into each other's competitive positions. This insight has the potential to unfairly undermine the market. Moreover, this public release of the data would give foreign competitors an unfair advantage over U.S. manufacturers because foreign competitors would have the benefit of this data while U.S. manufacturers would not have that same benefit, disadvantaging U.S. carbon black production in the global marketplace.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Greg L. Johnson, Counsel
Commenter Affiliation: International Carbon Black Association (ICBA)
Document Control Number: EPA-HQ-OAR-2010-0964-0010.1
Comment Excerpt Number: 3

Comment: In comments to EPA, the Federal Trade Commission ("FTC") voiced its concerns about EPA's proposed release of "inputs to emission equations" and other sensitive data elements. *See* Comments of the FTC to Docket No. EPA-HQ-OAR-2009-0924 (Sept. 30, 2010). As the Federal agency charged with antitrust jurisdiction, the FTC indicated that disclosure of sensitive business information such as "inputs to emission equations" would be harmful to markets and consumers. The ICBA urges EPA to follow the recommendation of the FTC to protect the confidentiality of "inputs to emission equations." Therefore, the ICBA requests that EPA keep confidential production and feedstock quantity data for the carbon black industry.

Response: EPA appreciates the comments from the FTC and from commenters that referenced those comments. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into consideration in

determining the likelihood of each input to cause substantial competitive harm if released. Please also see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 32

Comment: ACC is not aware of any monthly reporting of actual quantities of petrochemical process feedstocks or products either in a public or confidential forum. Projected maximum hourly and projected annual production rates may be contained in air permit applications, but this information is stamped "Business Confidential" and is treated as "Business Confidential" by state permitting agencies. This information typically is not included in permit terms and conditions.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 153

Comment: State oil and gas commissions publish significant amounts of information on oil and gas production operations. As a result, API has fewer confidentiality concerns for onshore oil and gas production operations. Rather than the detailed tables provided previously for other GHGRP subpart, API wishes to convey a few key messages regarding CBI for onshore oil and gas production.

Some state permitting agencies make permitting information available to the public, however other states allow almost all permit application data to be designated as CBI. However, EPA should not impose the reporting of all data elements that are available through various state agencies. Instead, EPA should provide a mechanism for companies to request case-by-case CBI designation for specific data elements at their discretion. Because fewer CBI concerns are associated with onshore oil and gas production operations, this customized CBI request approach should be manageable.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

20.0 SUBPART Y

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[32]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 45

Comment: For Subpart Y, the proposed rule would require the disclosure of the quantity and type of materials loaded by vessel type under Section 98.256(p)(2) for loading operations at refineries. EPA proposed the quantities of refinery non-crude feedstocks and petroleum products reported under Subpart MM Section 98.396(a) are CBI. The CBI determination for quantities of refinery petroleum products is inconsistent between Subparts Y and MM. The quantities and type of materials loaded by vessel type reported under Subpart Y loading operations is a subset of the quantities of petroleum products reported under Subpart MM. The same reasons for determining the Subpart MM petroleum product quantities are CBI apply to the quantities and type of materials reported under Subpart Y for loading operations.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 55

Comment: The carbon mole number of the compound.

EPA proposed to defer this data element, though it was added to the GHGRP after the proposed CBI rulemaking. Note, however, the information reported for this data element are constants.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 83

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[32] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1. Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

Comment: [The commenter supports deferring the following inputs:]

Unit-specific CH4 emission factor.

Units of measure for the unit-specific CH4 emission factor.

Unit-specific N2O emission factor.

Units of measure for the unit-specific N2O emissions factor.

Annual average mole fraction of carbon in the sour gas.

Annual mass of coke dust collected in dust collection systems.

The unit-specific CH4 emission factor.

Units of measure for the unit-specific CH4 emission factor.

The unit-specific N2O emission factor.

Units of measure for the unit-specific N2O emission factor.

CO2 emission factor .

CH4 emissions factor.

Carbon emission factor.

CO2 emission factor.

Carbon emission factor.

CH4 emission factor.

Total quantity of crude oil plus the quantity of intermediate products received from off-site that are processed at the facility in the reporting year.

CH4 emission factor use.

Average pressure differential.

Average mole fraction of CH4 in vent gas from the unstabilized crude oil storage tank.

Tank-specific methane composition data.

Gas generation rate data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 84

Comment: Quantity of materials loaded that have an equilibrium vapor-phase concentration of CH4 of 0.5 volume percent or greater .

This data element should be CBI as it reveals sensitive information that may cause commercial harm if divulged.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 44

Comment: The disclosure of operational data and throughputs, in combination with information reported under Subpart MM, would enable equipment/technology providers to quantify a refinery's capabilities. This information could be used against the refiner in future negotiations to upgrade or replace its equipment. Operational data and throughputs would provide insight into a refinery's capacity for processing different crude oil and the products and product quantities that the refinery can produce. Requiring the disclosure of this information could enable competitors to determine the operational strengths and weaknesses of that refinery. For example, competitors could determine if a refinery has excess capacity or is constrained by its operational capacity. In turn, this information would indicate whether or not capital expenditures are needed to expand capacity or process different crude oils. Based on this information, competitors could make competitive decisions and formulate strategies to the detriment of the reporting refinery. This commercially sensitive data thus warrants CBI protection. Comparison of actual utilization to permitted capacity can give a good indication of how a process unit is used. The Fluid Catalytic Cracking Unit (FCC) is a key conversion unit for the refinery. The utilization of the FCC is a key indicator for the refinery's ability to process crude and to supply gasoline. Low utilization of the FCC indicates a refinery has slack capacity and could easily increase rates to cover supply disruptions. High utilization would indicate that a refinery can not increase rates to cover supply disruptions and will have to buy product from the market – likely another region or import or increase capacity through capital expenditure. FCC unit outages and FCC Pre-Treater or Post-Treater TARs cycles create gasoline supply disruptions. Competitors knowing when outages are likely to occur limits the refiner's ability to manage supply and creates the potential for traders to squeeze the market – increasing costs to consumers.

Coker utilization and mode of operation can also be indicators of the greater refinery positioning and gasoline production strategy. EPA has requested a lot of very detailed information on delayed coker operation including – drum height, diameter, drum outage, number of cycles along with unit energy consumption. This information can be used to make a very accurate determination of residual oil feed capacity and usage. Knowing residual oil production and conversion/coking capacity tells competitors a lot about the crude supply options of the refinery. This could disadvantages [sic] the refinery in crude supply negotiations and investments in refinery upgrades or logistics. By tracking unit utilization rates, it is very easy to determine unit TAR cycles. Although some information to derive TARs is publicly known already, details are business sensitive and are not publicly available. The data requested on flaring and start-up/shutdowns provides a very good view into past TAR's. Most refineries or process units operate on a 4 or 5 year TAR cycle, so once you know the history, it is fairly easy to establish a trend and predict the next TAR window. Managing outside logistics is a crucial part of a TAR. A refinery will often rent tanks or make product or feedstock purchases from other regions to smooth supply during the TAR. If TAR cycles and likely future timing is available publicly, traders could use this information on when product supply will be reduced (a known future short in the market) to squeeze the market. Broadcasting when a TAR occurs will increase supply costs and invite uncompetitive trading. In addition to supply issues, with the knowledge that the refinery will need to perform a TAR in a specific window, suppliers could charge higher rates for labor, cranes, scaffolding, etc.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[33]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 44

Comment: For Subpart Y, the proposed rule would require disclosure of data elements under Sections 98.256(h)(4) and (5) that would reveal sulfur plants' capacity and gas feed rate and composition. [Footnote: EPA proposes to categorize the Section 98.256(h)(4) data elements as "inputs to emission equations." EPA includes the following Section 98.256(h)(5) data elements in the "calculation methodology and method" category: (1) indicate whether the recycled flow rate and carbon content are included in the measured data; and (2) indicate whether a correction for CO2 emissions in the tail gas was used in Equation Y-12. All of these elements are commercially sensitive and should be protected.] These data, in combination with information reported under Subpart MM, would provide insight into a refinery's capacity for processing different crude oil and the products and product quantities that the refinery can produce.

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[33] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1. Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

Requiring the disclosure of information about a refinery's sulfur recovery process could enable competitors to determine the operational strengths and weaknesses of that refinery. For example competitors could determine if a refinery has excess sulfur plant capacity or is constrained by its sulfur plant capacity. In turn, this information would indicate whether or not capital expenditures are needed to expand capacity or process different crude oils. Based on this information, competitors could make competitive decisions and formulate strategies to the detriment of the refinery. This commercially sensitive data thus warrants CBI protection.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 65

Comment: Fraction of carbon in the flare gas contributed by methane (used in Equation Y-4).

API supports deferring this information. This data element should be CBI. Methane content, when combined with other data elements and publicly available information, reveals process operational characteristics of the refinery.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 58

Comment: Annual volume of flare gas combusted during normal operations.

This information is CBI. It reveals the reliability and utilization of refinery operations.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 59

Comment: Annual average higher heating value of flare gas.

API supports deferring this information. This data element should be CBI. HHV information along with the identification and maximum rated heat capacity of refinery processes, provides competitors valuable trade information by knowing utilization rates and capacities.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 61

Comment: Volume of gas flared.

API supports deferring this information. This data element should be CBI. This information reveals the reliability and utilization of refinery operations.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 62

Comment: Average molecular weight.

API supports deferring this information. This data element should be CBI. Molecular weight, when combined with other data elements and publicly available information, reveals process operational characteristics of the refinery

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 64

Comment: Carbon content of the flare gas.

API supports deferring this information. This data element should be CBI. Carbon content, when combined with other data elements and publicly available information, reveals process operational characteristics of the refinery.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 80

Comment: [The commenter supports deferring the following information]:

Coke burn-off factor.

Annual throughput of unit

Average carbon content of coke

This reveals specific operation data for key refinery processes.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 85

Comment: [The commenter supports deferring the following information:]

Activity data for calculating emissions.

Activity data for calculating emissions.

This data element should be CBI as activity data reveals specific operating information for key refinery processes.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 90

Comment: [The commenter supportS deferring the following information]

Average coke burn-off quantity per cycle or measurement period.

Average carbon content of coke.

These data elements should be deferred and should be CBI. This reveals specific operational data for key refinery processes.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 93

Comment: Annual volumetric flow to the sulfur recovery plant.

This information is CBI as it reveals a sulfur plants' capacity and gas feed rate and composition. This information can be used to determine if the refinery has excess sulfur plant capacity or is constrained by its capacity

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 96

Comment: [The commenter supports deferring the following information]

Annual volume of recycled tail gas.

Annual average mole fraction of carbon in the tail gas.

This information is CBI as it reveals how a refinery is operated.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 98

Comment: [The commenter supports deferring the following information]:

Annual mass of green coke fed to the unit.

Carbon content of green coke fed to the unit.

Annual mass of marketable coke produced.

Carbon content of marketable coke produced.

This information is CBI as it reveals specific information about the operation and utilization of the coke calciner.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 105

Comment: Activity data for calculating emissions.

API supports deferring this information. These data elements should be CBI as activity data reveals specific operating information for key refinery processes.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 109

Comment: Quantity of asphalt blown.

API supports deferring this information. This data element should be CBI as it reveals actual quantities of asphalt produced and process utilization when combined with other publicly available information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 118

Comment: Dimensions of coke drum or vessel.

API supports deferring this information. These data elements should be CBI as they reveal process capacity and utilization. This information also reveals overall design and operational data for the refinery as a whole, such as the collection of light ends used to produce transportation fuels.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 119

Comment: Typical gauge pressure of the coking drum when first vented to the atmosphere.

API supports deferring this information. These data elements should be CBI as they reveal process capacity and utilization. This information also reveals overall design and operational data for the refinery as a whole, such as the collection of light ends used to produce transportation fuels.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 120

Comment: Typical void fraction of coke drum or vessel.

API supports deferring this information. These data elements should be CBI as they reveal process capacity and utilization. This information also reveals overall design and operational data for the refinery as a whole, such as the collection of light ends used to produce transportation fuels.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 123

Comment: Annual number of coke-cutting cycles of coke drum or vessel.

API supports deferring this information. This data element should be CBI as it reveals process capacity and utilization. This information also reveals overall design and operation data for the refinery as a whole.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 125

Comment:

Height and diameter of the coke drums.

Cumulative number of vessel openings for all delayed coking drums in the set.

Typical venting pressure

Void fraction.

Mole fraction of methane in coking gas.

API supports deferring this information. These data elements should be CBI as they reveal process capacity and utilization. This information also reveals overall design and operational data for the refinery as a whole, such as the collection of light ends used to produce transportation fuels.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 138

Comment: Total quantity of crude oil plus the quantity of intermediate products received from off-site that are processed at the facility in the reporting year.API supports deferring this information. This data element should be CBI as it reveals core business information and equipment utilization.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 139

Comment: Quantity of materials loaded that have an equilibrium vapor-phase concentration of CH4 of 0.5 volume percent or greater.

API supports deferring this information. This data element should be CBI as it reveals sensitive information that may cause commercial harm if divulged.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 48

Comment: The molar volume conversion factor.

This value is a constant. It is not CBI and does not need to be deferred.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 22

Comment: On analysis, the deferred data elements in the refinery sector proved to be publicly available or not of business relevance. [Footnote: Dr. Sahu's analysis is attached as Ex. 22.] For instance, some of the deferred elements are simply constant conversion factors that would not vary from facility to facility, *see, e.g.*, 40 C.F.R. §§ 98.256(e)(6), 98.256(f)(7).

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 97

Comment:

- The reporting of the units of measure for the CH4 emission factor (98.256f11) should not be deferred, as this is not business sensitive information.
- The reporting of the units of measure for the N2O emission factor (98.256f12) should not be deferred, as this is not business sensitive information.
- The reporting of activity data for calculating emissions (98.256f12) should not be deferred because this is not business sensitive information.
- The reporting of the default (95%) or unit-specific correction, as well as the approach used (98.256h5) should not be deferred because this is not business sensitive information.
- The reporting of whether or not coke dust is recycled to the unit (98.256i5) should not be deferred because this is not business sensitive information.
- The reporting of the units of measure for the CH4 emission factor, as well as the activity data for calculating emissions (98.256i7) should not be deferred, as this is not business sensitive information.
- The reporting of the units of measure for the N2O emission factor, as well as the activity data for calculating emissions (98.256i8) should not be deferred, as this is not business sensitive information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 145

Comment: The reporting of the basis for the mole fraction of CH4 in the vent gas from the unstabilized crude oil storage tank (98.256o6) should not be deferred, as this is not business sensitive information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 91

Comment: The reporting of the fraction of carbon in the flare gas contributed by methane, used in Equation Y-4 (98.256e10) should not be deferred because this can be calculated from composition data, which is publicly available. [Commenter references Bay Area Air Quality Management District regulations for flare monitoring at petroleum refineries, which requires the reporting of vent gas composition. See Ex. R2: BAAQMD Regulation 12, Rule 11, 401.2.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 85

Comment: The reporting of the molar volume conversion factor for each flare (98.256e6) should not be deferred because the value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 23

Comment: On analysis, the deferred data elements in the refinery sector proved to be publicly available or not of business relevance. For instance, some of the deferred elements, such as the number of carbon-containing compounds in the flare stream, *see, e.g.*, 40 C.F.R. § 98.256(e)(7), are already reported to permitting authorities.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra C\lub et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 86

Comment: The reporting of the molar volume conversion factor for each flare (98.256e7) should not be deferred because the value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 87

Comment: The reporting of the carbon mole number of the compound (98.256e7ii) should not be deferred because the data is publicly available (composition data can be used). [Commenter references Bay Area Air Quality Management District regulations for flare monitoring at petroleum refineries, which requires the reporting of vent gas composition. See Ex. R2: BAAQMD Regulation 12, Rule 11, 401.2.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 88

Comment: The reporting of the annual flare gas volume and higher heating value (98.256e9) should not be deferred because the data is publicly available (composition data can be used). [Commenter references Bay Area Air Quality Management District regulations for flare

monitoring at petroleum refineries, which requires the reporting of vent gas composition. See Ex. R2: BAAQMD Regulation 12, Rule 11, 401.2.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 89

Comment: The reporting of the volume of gas flared, average molecular weight, and carbon content of the flare gas (98.256e9) should not be deferred because the data is publicly available. [Commenter references Bay Area Air Quality Management District regulations for flare monitoring at petroleum refineries, which requires the reporting of flare gas volumetric flow, vent gas composition, and average molecular weight. See Ex. R2: BAAQMD Regulation 12, Rule 11, 401.1, 401.2, and 401.4.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 90

Comment: The reporting of the molar volume conversion factor (98.256e9) should not be deferred because the value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 93

Comment: The reporting of the coke burn-off factor (98.256f10) should not be deferred because this value is a Title V Permit recordkeeping requirement. [Commenter references a permit renewal draft for Chevron Richmond, in which the permit conditions are listed – one of the conditions is an upper limit for the pounds of PM emitted per 1000 pounds of coke burn-off. See Ex. R4, p.400.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 94

Comment: The reporting of a unit's annual throughput (98.256f10) should not be deferred because the data is available via other permit reporting requirements. [Commenter references comments by Communities for a Better Environment (CBE) regarding a Final Environmental Impact Report (FEIR) for a refinery feedstock switch at a Chevron plant. See Ex. R5, p.6]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 95

Comment: The reporting of the average carbon content of coke (98.256f10) should not be deferred because a default value is provided.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 96

Comment: The reporting of a unit-specific CH4 emission factor (98.256f11) should not be deferred, as this is a calculated value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.

Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 98

Comment: Activity data for calculating emissions' (98.256f11) is too general and should not be CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 99

Comment: The reporting of a unit-specific N2O emission factor (98.256f12) should not be deferred, as this is a calculated value.

Response: Type

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 102

Comment: The reporting of average coke burn-off quantity per cycle or measurement period (98.256f13) should not be deferred because this information is available in Title V Permits.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 103

Comment: The reporting of the average carbon content of coke (98.256f13) should not be deferred because this information is generally well known, within a range.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 92

Response: The reporting of the molar volume conversion factor (98.256f7) should not be deferred because the value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 104

Comment: The reporting of annual volumetric flow to the sulfur recovery plant (98.256h4) should not be deferred because this information is available in Title V Permits.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 105

Comment: [The commenter states that the following data elements are] important for the estimation and verification of emissions and thus equally as important as the calculated emission estimates. Therefore, this data should be reported and reporting should not be deferred. Doing so is not only inconsistent with basic technical principles of verifiability, it is clear that even industry representatives recognize that consistency, transparency, and accuracy are important for GHG reporting. [Commenter references a paper discussing techniques for consistent estimation and reporting of GHG emissions from several sources. See R6: Ritter et al paper.]

The molar volume conversion factor and the annual average mole fraction of carbon in the sour gas (98.256h4)

The correction value, the annual volume of recycled tail gas, and annual average mole fraction of carbon in the tail gas (98.256h5)

The annual mass of coke dust collected, the annual mass and carbon content of the green coke fed to the unit, and the annual mass and carbon content of marketable coke produced (98.256i5)

The quantity of asphalt blown (98.256j2)

The typical gauge pressure of the coking drum when first vented to the atmosphere, as well as the annual number of coke-cutting cycles of the coke drum or vessel (98.256k3)

The typical venting pressure (98.256k4)

The total annual quantity of crude oil and intermediate products received from off-site that are processed at the facility (98.256m3)

The total annual quantity of crude oil and intermediate products received from off-site that are processed at the facility (98.256o2ii)

The quantity of unstabilized crude oil received during the calendar year (98.256o4ii)

The average pressure differential (98.256o4iii)

The average mole fraction of CH4 in vent gas from the unstabilized crude oil storage tank (98.256o4v)

The tank-specific methane composition data (98.256o4vi)

The quantity of unstabilized crude oil received during the calendar year and the average pressure differential (98.256o6)

The tank-specific methane composition data (98.256o7)

The quantity of materials loaded that have an equilibrium vapor-phase concentration of CH4 of 0.5 volume percent or greater (98.256p2)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1 and EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31 for further detail.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 110

Comment: The reporting of a unit-specific CH4 emission factor (98.256i7) should not be deferred, as this is a calculated value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.

Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 112

Comment: The reporting of a unit-specific N2O emission factor (98.256i8) should not be deferred, as this is a calculated value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 115

Comment: The reporting of the CO2 emission factor (98.256j5) should not be deferred, as this is a calculated value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 116

Comment: The reporting of the CH4 emission factor (98.256j6) should not be deferred, as this is a calculated value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 117

Comment: The reporting of the carbon emission factor (98.256j7) should not be deferred, as this is a calculated value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 118

Comment: The reporting of carbon and CO2 emission factors (98.256j8) should not be deferred, as these are calculated values.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 119

Comment: The reporting of the CH4 emission factor (98.256j9) should not be deferred, as this is a calculated value.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 120

Comment: The reporting of coke drum or vessel dimensions (98.256k3) should not be deferred because this information is publicly reported as modeling output.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 122

Comment: The reporting of the typical void fraction of the coke drum or vessel (98.256k3) should not be deferred because a default value is suggested.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 123

Comment: The reporting of the molar volume conversion factor (98.256k3) should not be deferred because this value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 124

Comment: The reporting of the height and diameter of the coke drums (98.256k4) should not be deferred because this information is publicly reported as modeling output.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 125

Comment: The reporting of the cumulative number of vessel openings for all delayed coking drums in the set (98.256k4) should not be reported because this information is available in Title V Permits.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 127

Comment: The reporting of the void fraction and the mole fraction of methane in the coking gas (98.256k4) should not be deferred because a default value is suggested.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 128

Comment: The reporting of the molar volume conversion factor (98.256l5) should not be deferred because this value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 130

Comment: The reporting of the CH4 emission factor used (98.256m3) should not be deferred because a default value is suggested.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 131

Comment: The reporting of the molar volume conversion factor (98.256m3) should not be deferred because this value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 132

Comment: The reporting of the number of each type of emission source listed in equation Y-21 (98.256n3) should not be deferred because this information is publicly available in Title V Permits.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 136

Comment: The reporting of the molar volume conversion factor (98.256o4iv) should not be deferred because this value is a constant.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 142

Comment: The reporting of the mole fraction of CH4 in the vent gas from the unstabilized crude oil storage tank (98.256o6) should not be deferred because a default value is suggested.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)

Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 148

Comment: This is an example of the random nature EPA deferred reporting of certain data elements. To be consistent with the December 27, 2010 rule, these data elements should be CBI since they are inputs to emissions equations. Also, these data elements are similar to numbers Y99 and Y101, which were deferred.

Y21 (98.256e9) Carbon content of the flare gas. API supports deferring this information. This data element should be CBI. Carbon content, when combined with other data elements and publicly available information,, reveals process operational characteristics of the refinery.

Y15 (98.256e9) Annual volume of flare.

(98.256e9) Average molecular weight. API supports deferring this information. This data element should be CBI. Molecular weight, when combined with other data elements and publicly available information, reveals process operational characteristics of the refinery

Applicable equation input parameters specified in paragraphs (f)(7) through (f)(13).

Y99 (98.256o4iii) Average pressure differential.

Y101 (98.256o4v) Average mole fraction of CH4 in vent gas from the unstabilized crude oil storage tank.

API supports deferring this information.

Response: EPA thanks the commenter for their input. As proposed in the December 27, 2011 notice, 40 CFR 98.256(e)(9), (o)(4)(iii), and (o)(4)(9)(v) 98.256(f)(7) (the molar volume conversion factor), 98.256(f)(10) (coke burn off factor, annual throughput, and average carbon content of coke), 98.256(f)(11) (units of measure, activity data, and unit-specific CH4 emission factor), 98.256(f)(12) (units of measure, activity data, and unit-specific N2O emission factor), and 98.256(f)(13) (average carbon content) have been deferred . None of the other data elements in 40 CFR 98.256(f)(7) through (13) are used as inputs to emission equations. Therefore, these data elements are not included in this rulemaking. For further information on how EPA defines inputs, please see the response to comment EPA-HQ-OAR-2010-0929-0012.1, excerpt 7. Please also see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 161

Comment: For Subpart Y, the following data elements should not be CBI because they are not business sensitive:

- Applicable equation input parameters specified in paragraphs (f)(7) through (f)(13) (98.256g5)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

21.0 SUBPART Z

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 11

Comment: TFI believes that all of the Subpart Z inputs to emission equations set forth in Table 4 should be considered confidential business information by EPA and not available for public disclosure. All of TFI's members keep this information as confidential in their normal course of business. Phosphate rock consumed in a month by a phosphoric acid process line ($P_{n,i}$) provides precise information on the production rate of the unit. Further, phosphate-rock specific information ($IC_{n,i}$) may allow competitors to evaluate efficiencies and contemplate a switch to another rock source that could lead to competition for that ore body. By providing precise data, competitors will be able to benchmark their phosphoric acid process against a reported U.S. plant's process. Thus, it is critical to these data elements from disclosure.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Burl Ackerman, Environmental Engineering Manager
Commenter Affiliation: J. R. Simplot Company
Document Control Number: EPA-HQ-OAR-2010-0929-0028.1
Comment Excerpt Number: 4

Comment: Simplot recommends the following inputs be considered confidential business information.

<u>Subpart Z — Phosphoric Acid</u>

98.266(a)

98.266(d)

98.266(f)(6)

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the

data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 12

Comment: None of the data elements set forth in Table 4 are publicly available or discernable from other publicly available data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

22.0 SUBPART AA

Commenter Name: Leslie Ritts
Commenter Affiliation: National Environmental Development Group, Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 3

Comment: Subpart AA, Equation AA-2 of EPA's GHG Mandatory Reporting Rule requires recovery boilers to report GHG emissions by using the black liquor solids in the GHG calculation. The BLS or black liquor solids is a measure of the organic portion of the black liquor all of which came from the wood, and the black liquor solids also represent half of the total wood used during the cooking process. Knowing the black liquor solids value directly provides the wood usage, and hence the annual production of the facility. The actual percent of the organic materials in the black liquor solids is easily determined by the final product type, for instance the paper products versus cardboard versus tissue which each have a unique BLS percentage content.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Ritts
Commenter Affiliation: National Environmental Development Group, Clean Air Project (NEDA/CAP)

Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 4

Comment: GHG MRR rule also requires reporting of annual fuel use. Fuel costs by fuel type are readily available. Therefore, a cost efficiency value can be determined using the total cost of the fuels and the production (for instance, the dollar per ton of product). Information containing cost per unit of production is highly confidential. Also, fuel usage data provides energy information for each type of fuel. Therefore, energy efficiency values can also be determined.

For this reason, pulping companies guard both process information and energy efficiency information from competitors. Industrial spies, Boris and Natasha, can take information about inputs to the digester and energy use, and use it along with production rates to calculate mill yields; this information in turn can be taken to a competitor who can use it to optimize its pulp production processes, removing the competitive advantage the reporting company currently enjoys.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 6

Comment: Information on spent liquor combusted, to be reported under §98.276(c) can be used by competitors to back out process information and production totals, and/or to leverage pricing for pulp from competitors. Similarly, in related industries that convert tissues into various household paper products from pulp, throughput and ratios of power versus throughput and product runs, which are also the inputs into calculation of GHG emissions, can be utilized by industry competitors to compute costs and by suppliers to leverage manufacturers prices on raw commodities. In turn, these data can be used to estimate pricing models, plant capacities, process technologies and technical capabilities and limitations of equipment used for production, especially since most of EPA's data is required to be supplied on a unit by unit basis.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 15

Comment: The data elements in each subpart that are considered sensitive and could cause harm are too numerous to list. Some of the specific data elements that EPA proposed to treat as non-confidential "emissions related" information in its December 27, 2010 Notice of Proposed Rulemaking[34] include data on production and throughput such as "anode consumption" – 98.66(e)(1); "amount of each fluorinated GHG consumed for each recipe – 98.96(k); and "mass of spent liquor solids combusted" – 98.276(c). Some of the specific data elements for throughput include "adipic acid production" - 98.56(b) and (c), and annual production of pulp and;or paer [sic]products produced" § §98.276(k), and "nitric acid production" - 98.226(c), (d), and (e). Other examples of the sensitive information for a single manufacturing source category (Subpart E for Adipic Acid Manufacturing) are shown in Attachment 1.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Paul Noe, Vice President, Public Policy and Robert Glowinski, President
Commenter Affiliation: American Forest & Paper Association (AF&PA) and American Wood Council (AWC)
Document Control Number: EPA-HQ-OAR-2010-0964-0012.1
Comment Excerpt Number: 3

Comment: AF&PA regards facility steam purchases and product production data (Subpart AA - 98.276 (j) and (k)) as confidential and asks that EPA consider these elements confidential as well. In the interim, these data should be included in the list of "Specific data elements for which reporting date is changed." The public availability of emissions data, production data, and NAICS codes, together, by company or facility, will allow customers to compare product-based GHG footprints among competitor suppliers. Because of the complexity of manufacturing processes and energy use profiles, these data produce inaccurate benchmarks that mislead customers and create unfair competitive advantages in the marketplace. It is inappropriate for EPA, as a government agency, to provide data to the public that will create such distortions. AF&PA has studied the use of GHG benchmarks and found that many variables have large impacts on GHG emissions per ton of production such as degree of integration, and whether a facility generates its own energy and/or sells electricity to the grid. Fuel type is an important variable, yet many facilities do not have access to particular fuels, such as natural gas or biomass. In addition, our analysis has shown that in the pulp and paper sector, GHG emissions are not correlated to product type. The forest products industry has undertaken complex analysis

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[34] EPA notes that our proposed determination that inputs to equations are emissions data was proposed in the July 7, 2010 CBI proposal, not in the December 27, 2010 deferral proposal.

of GHG footprints and has created analysis tools that allow customers to more accurately assess the GHG profiles of individual companies and their products. EPA should not provide unrefined data to the public that result in inaccurate or unfair depictions of a company or facility GHG profile. Like other federal agencies, EPA should treat such data as confidential and any public disclosures should be aggregated to the highest level.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

Commenter Name: Robert D. Bessette, President
Commenter Affiliation: Council of Industrial Boiler Owners (CIBO)
Document Control Number: EPA-HQ-OAR-2010-0964-0014.1
Comment Excerpt Number: 3

Comment: If certain information collected through the MRR, such as input data used in emission equations and the calculations themselves, is released to the public, CIBO members would suffer substantial harm to their competitive position. *See Leavitt*, 2006 WL 667327 at *5 (EPA defending CBI claims because the disclosure of information "would result in a competitive disadvantage to the respective companies"). Here, if the non-emission input and other data listed in Table 1 above were made publicly available, competitors would be privy to sensitive data of their direct competitors. The disclosure of this non-emission input data might also reveal a company's market strength and position or enable competitors to "infer production costs and pricing structures." *See* 75 Fed. Reg. 39,122-23 (July 7, 2010).

- Providing competitors with knowledge regarding a competitor's source operating hours and other information, such as the ratio of maximum rate heat input capacity to the design rated steam output capacity can cause harm the competitive position of any companies required to report this information. Competitors could infer from this data whether certain equipment is out-dated and in need of replacement (thereby requiring their competitor to make costly capital investments or permitting modifications) or if their competitor lacks spare capacity to increase production. Similarly, disclosing information regarding the number of units sharing the same common stack or duct and combined maximum rated heat capacity could potentially provide competitors with information about a facility's spare process capacity and process design.
- Publicly disclosing energy consumption, the maximum rated heat input capacity, types of fuels used at a facility, or steam production may allow competitors to gain unfair intelligence regarding production capabilities, utilization, and production and energy costs. Knowledge of the capacity of process heaters, the type of fuel utilized in process heaters, composition of biomass combusted, molecular weights and carbon contents used in emissions calculations, and the high heat values for fuels combusted could enable competitors to calculate the production output and relative cost of manufacture at a particular facility.

- Identifying which facilities utilize non-traditional fuels could place the reporting entity at a competitive disadvantage because the composition and quantity of its nontraditional fuels are typically unknown amongst industry competitors. Therefore, these sources should not be forced to disclose confidential information such as the type of fuel utilized, composition of biomass combusted, molecular weights and carbon contents used in emissions calculations, and the high heat values for fuels combusted.

There is no time after which this data could be released that would avoid these potential competitive harms or antitrust concerns. Given these concerns, the confidential treatment of non-emission input and other data should not be time limited.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 27

Comment: The Federal Register notice for the proposed rulemaking does not include any explanation of why such data elements would constitute sensitive business information. Moreover, the docket for the July 2010 CBI determination likewise contains no evidence to support a deferral of these reporting requirements. Only one set of comments in that docket even arguably addresses the pulp and paper manufacturing industry: the comments of Weyerhaeuser, an international forest products company that owns pulp mill within the U.S. [Footnote: Letter from EHS&S, Regulatory Affairs, Weyerhaeuser Company, Sep. 7, docket No. EPA-HQ-OAR-2009-0041.1. Because of the ambiguity of Weyerhaeuser's comments, we do not concede that the comments alone were sufficient to exhaust the issue of whether inputs to emission equations pursuant to the requirements of subpart AA of 40 C.F.R. 98.270 et al. or any other part of the GHG mandatory monitoring and reporting requirements was sufficient to exhaust this issue.] Nothing in the comments by Weyerhaeuser, however, specifically addresses the data elements of contained at 40 C.F.R. 276 (b)-(i) would pose, much less explain why such elements constitute sensitive business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

23.0 SUBPART DD

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 37

Comment: For Electrical Transmission and Distribution Equipment Use and for Electrical Equipment Manufacture, EPA has proposed to defer data elements necessary to complete mass-balance calculations. *E.g.*, 40 C.F.R. Part 98.306(a)(2); 40 C.F.R. Part 98.456(a). There is no evidence of comments in the record that indicate any specific concern, or, indeed, any concern at all in disclosing the data elements EPA proposes to defer for Electrical Transmission and Distribution Equipment and Electrical Equipment Manufacture. Absent any evidence that disclosure of these data elements could cause covered facilities competitive harm, EPA can have no rational justification for delaying the reporting date.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

24.0 SUBPART EE

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 13

Comment: The DuPont TiO2 business has gone to great extremes to protect any information re: production, capacity, and/or operating rate, and information that may glean for insight about our cost, pricing, etc. In fact, it can be documented that – for approximately 30 years – we have maintained an ongoing dialogue with the FTC for an *in camera* treatment of our records. This includes multiple pages of the most sensitive cost information. [Reference Docket No. 9108.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 10

Comment: The EPA program as outlined will disproportionately impact the DuPont TiO2 business, more so than any other TiO2 producer. DuPont is not only the world's largest producer of TiO2, but also 3 of our 5 worldwide plants and ~75% of our capacity resides in the U.S. All of the other major U.S. producers of TiO2 have only one U.S.-based plant and while reporting production-related, CBI-type information could be undesirable to them, it will at worst be for minority parts of their worldwide TiO2 business operations. Said another way, the majority of our competitors TiO2 assets are in non-U.S. locations not subject to potential CBI disclosures.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 12

Comment: Similarly, although less directly, the release of Calcined Petroleum Coke Consumption [§98.316(b)(6)] and/or Monthly Carbon Content Factor of Petroleum Coke [§98.316 (b)(9)] data elements allow competitive interests to calculate information about our processes that we consider privileged (CBI). For example, knowing the carbon content of the coke allows a competitive interest to calculate the raw material cost of our coke and thus better approximate the raw material component cost of manufacture. Non-carbon contents of coke are typically sulfur, and higher sulfur-containing coke, for those having the appropriate technology, is a less expensive alternative. Coke Consumption, either in combination with TiO2 production information, or without it, provides far too much intelligence re: DuPont operations. In combination, a competitive interest may see differences in our coke/TiO2 ratios and glean information re: our technology, special cokes, etc. We strongly desire to retain things as this as CBI and not open the door to competitive interests to more easily speculate about our technology.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 35

Comment: Similarly, although less directly, the release of Calcined Petroleum Coke Consumption (§98.316(b)(6)) and/or Monthly Carbon Content Factor of Petroleum Coke (§98.316 (b)(9)) data elements allow competitive interests to calculate information about processes that our members consider CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Brian R. Coleman, Chairman
Commenter Affiliation: Titanium Dioxide Stewardship Council (TDSC)
Document Control Number: EPA-HQ-OAR-2010-0929-0011.1
Comment Excerpt Number: 1

Comment: Industry participants do not provide these data in any public forum and follow specific procedures to avoid any such release: Annual Production of TiO_2; Annual Amount of Petroleum Coke Consumed; Operating Hours per Calendar Year;

(Annual Amount of Petroleum Coke Consumed - 98.316(a)(2))

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA notes that not all of the data elements mentioned by the commenter are used as inputs to emission equations. Only data elements used as inputs to emission equations are included in this rulemaking. For the list of deferred data elements and their reporting deadline, please see 40 CFR part 98, subpart A, Tables A-6 and A-7.

25.0 SUBPART FF

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 29

Comment: Because methane emissions have no relation at all to the production of an underground coal mine, none of these data elements could be considered CBI. The methane is simply emitted as a by-product of mining, and as such, it creates an additional environmental harm beyond the harm caused by the coal mining and future burning of that coal. The methane emissions do not bear significantly upon a coal company's ability to perform its primary commercial purposes of mining and selling coal. The data elements listed for the GHG reporting rule implicate no trade secrets or competitive risks at all for the company.

Finally, it is unclear that EPA has even received any comments contending or demonstrating that these data should be considered CBI. Absent a reasonable basis for believing that there is likely to be reason to conclude that any of these elements are CBI, EPA can have no rational justification for delaying the reporting date now.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 28

Comment: Many of the data elements EPA proposes to defer in this category are required to be reported already. For example, the Mine Health & Safety Administration tests methane

emissions rates at each coal mine on a quarterly basis. As EPA has stated in a July 2010 report [Footnote: EPA, U.S. Underground Coal Mine Ventilation Air Methane Exhaust Characterization 2 (July 2010) (describing data reviewed on individual mine); *see also* EPA, Identifying Opportunities for Methane Recovery at U.S. Coal Mines: Profiles of Selected Gassy Underground Coal Mines 2002-2006, EPA 430- K-04-003, at 4-1, 4-4 (Jan. 2009), http://www.epa.gov/cmop/docs/profiles_2008_final.pdf (explaining that "[t]he mines that are profiled were selected primarily on the basis of their annual methane emissions from ventilation systems as recorded in a Mine Safety and Health Administration database (MSHA, 2004)" and discussing methane release data).]:

> MSHA conducts quarterly methane sampling at gassy underground coal mines in the United States. In that sampling program, MSHA measures and records both methane concentrations and ventilation exhaust airflows. Air sampling is conducted by MSHA inspectors using air bottles at a mine's main fans, along with a total quantity air ventilation volume reading. The sample bottles are sent to the MSHA lab for analysis, and the results are provided back to the MSHA district offices for inclusion in the inspection report. Air samples and ventilation readings are taken annually at mines with emission rates below 100,000 standard cubic feet per day (mines with such low VAM emission rates are not suitable for today's VAM mitigation technologies). According to Section 103 (i) of the Federal Mine Safety & Health Act of 1977 (Public Law 95164), MSHA conducts quarterly sampling at mines liberating more than 100,000 cubic feet of CH4 per day. If emission levels are greater than 200,000 cubic feet per day, more frequent inspections are mandated (with the frequency determined by the daily CH4 liberation rate calculated for the mine). In most cases, gassy mines with methane liberation rates in the millions of cubic feet per day are required to sample VAM on a monthly basis.

As the EPA 2010 report notes, a review of these data show that underground coal mines already are required to report information on air flow and methane concentration.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

26.0 SUBPART HH

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 30

Comment: In its July CBI determination, EPA found that reporting of a number of data elements for landfills under subpart HH would not pose competitive harms. EPA explained that: The number of wells in a gas collection system is not proprietary or sensitive information. It does not reveal any information about manufacturing processes or products and is unlikely to reveal any proprietary information on the design or operation of a landfill gas collection system. The

landfill design capacity is routinely included in State solid waste permits and Part 70 operating permits so is often already publicly available.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 32

Comment: EPA also found that a number of elements for landfills falling into the "Test and Calibration Methods Category" – e.g., estimating municipal waste composition from other or more refined waste categories and whether the fraction of CH4 in landfill gas was determined based on measured values or the default value – do not warrant confidential treatment. *Id.* at 39114. As EPA explained:

> The data elements in this category consist of general descriptions of methods and the frequency of conducting performance tests or sample analysis for the purposes of determining values used as inputs to equations. The data elements in this category do not reveal the numerical results of such tests. The data elements do not reveal any proprietary information or any other information that would likely provide insight for competitors to gain an advantage.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 34

Comment: The Federal Register notice for the proposed deferral does not include any explanation for deferring the subpart HH elements listed in the table accompanying the proposal. Thus, it is difficult to ascertain the basis for the proposed deferral, especially in light of EPA's earlier finding. The docket for the July 2010 CBI determination also is exceedingly thin on any justification for now considering this subpart HH information sensitive. We identified one set of comments by Weyerhaeuser, a company in the wood products business, that raised a single concern with reporting hours of operation based on the claim that hours of operation is a direct measurement of production [see Letter from EHS&S Regulatory Affairs, Weyerhaeuser Company, September 7, 2010, docket no. EPA-HQ-OAR-2009-0924-0041.1]. However, it is not clear that this comment is directed specifically at landfills (although the commenter mentions surface area of the landfill in the same sentence): EPA is only proposing to defer operating hours

for destruction devices at subpart HH facilities, which is not related to production. In addition, there can be no justification for treating a data element as CBI simply because that data is related in some way to the total production of a facility. The production level of a landfill does not meet the narrow definition of trade secret. Further, as even this comment admits, "Title V permits may have a maximum limit on hours of operation." *Id.* This limit assumes that a regulator can require reporting of the hours of operation in order to determine compliance with that requirement. The letter does not make a case for protecting any of the other subpart HH data elements; indeed, Weyerhaeuser agrees that test and calibration elements are not CBI.

Comments apparently challenged the requirement to report the local population and types of waste because operators would need to figure out this information based on the community they serve [*See* Ex. 33, EPA Response to Comments 83 (Sept. 2009), http://www.epa.gov/climatechange/emissions/downloads09/documents/SubpartHH-Landfills.pdf]. This suggests that landfill operators may consider this requirement to require some research on their part, not that they would consider these data to be confidential.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 31

Comment: In its July CBI determination, EPA found that reporting a number of data elements for landfills under Subpart HH would not pose competitive harms. EPA explained that: "[S]urface area containing waste can be readily observed, *e.g.,* from touring the landfill or aerial photos, so is already available and not entitled to confidential treatment." *75 Fed. Reg. 39094, 39113 (July 7, 2010).*[…]

Comment: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Peter Anderson, Executive Director
Commenter Affiliation: Center for a Competitive Waste Industry
Document Control Number: EPA-HQ-OAR-2010-0964-0004
Comment Excerpt Number: 1

Comment: This is to provide public comment on the EPA's CBI docket in the above referenced matter limited to Subpart HH-Municipal Solid Waste Landfills reporting. The issues raised that precipitated this docket concerning proprietary inputs to emissions equations do not pertain to municipal solid waste (MSW) landfills, whose "inputs" are almost entirely a variegated mix of household and commercial solid wastes without any proprietary value. Moreover, except in the

rare case where a reporting entity choses [sic] to estimate its own value for L sub o (lifetime methane potential), Subpart HH provides the default values for such input factors. And, as noted, in that exceptional instance where site specific values are used, there is no trade secret involved in the particular mix of incoming trash to that facility. The only remotely conceivable commercial value is for the tons of waste at the reporting facility, but that item is already so widely publicly reported in such a multiplicity of places, including EPA's LMOP landfill data base, that no proprietary claim can be sustained. For these reasons, we ask that Subpart HH reporting be determined in advance of the March 31 filing date to not be affected by commercial business interests, and the reported values for MSW landfills be immediately released to the public.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0014.1, excerpt 1.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 33

Comment: EPA also notes in the current proposed rulemaking that the general concerns about inputs to emission equations noted by commenters likely do not apply to subpart HH sources, as "municipal landfill data are generally available in public records." See 75 Fed. Reg. at 81354.

We agree with EPA's initial determination that none of these elements pose confidentiality concerns. The information is either readily available through state solid waste or local land use permitting, or is not competitively sensitive. For example, an application for a solid waste management facility permit in Massachusetts must contain a number of plans – including a site plan, facility design plan, and operation and maintenance plan – that provide the state with detailed information about the facility. This information includes, among other things, "a detailed description of the type and size of the proposed facility" and "the nature and amount of refuse to be handled on a daily and weekly basis," 310 CMR 19.030(3)(c)(3), i.e., capacity and disposal quantity information analogous to that in 40 C.F.R. 98.346(a). The state's operating permit program requires similar information. *See* 310 CMR 19.042. In addition, for all active and inactive landfills, Massachusetts requires reporting of and makes publicly available the year in which each landfill first accepted waste and the last year it accepted waste, two data elements in 40 C.F.R. 98.346(a) that EPA proposes to defer. [*See* Ex. 27, Massachusetts Department of Environmental Protection, Solid Waste Program, "Active Landfills," available at http://www.mass.gov/dep/recycle/actlf.pdf, and Ex. 28, same, "Inactive Landfills," available at http://www.mass.gov/dep/recycle/inactlf.pdf] Landfills must make annual reports to the state that include tonnage of waste accepted by type [see *Annual Solid Waste Facility Reports:* Landfill Summary, Calendar Year 2009], again information required by 40 C.F.R. 98.346(c) that EPA proposes for deferral, 75 Fed. Reg. at 81362 (all of 98.346(c), waste composition for each year, proposed for deferral).

Other states have similar requirements. The following data elements on EPA's list are required to be reported or are regularly reported to meet federal or state requirements.

1. The New Source Performance Standard ("NSPS") and Emission Guidelines for MSW Landfills, 40 C.F.R. Part 63 subparts Cc, WW, require that an operator submit an initial design capacity report, within 90 days of construction, modification, or reconstruction that provides: (i) "[a] map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or tribal agency responsible for regulating the landfill," (ii) the maximum design capacity of the landfill. It further provides that "[t]he State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill." 40 C.F.R. § 60.757(a). As this information is required to be reported, clearly the "capacity of the landfill," as well as the surface area or "size, location . . . [and] areas," may not be considered CBI. These standards further require that the operator submit an amended design capacity report "within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters."

2. The State of Illinois collects data and provides an annual report on specific landfills, including facility-specific numbers of "waste received" and remaining available waste capacities [*See* Ex. 29, http://www.epa.state.il.us/land/landfill-capacity/2008/appendix-a.pdf and Ex. 30, http://www.epa.state.il.us/land/landfill-capacity/2008/appendix-b.pdf]. The most recent full report (2008) is available from the state [see Ex. 31, http://www.epa.state.il.us/land/landfill-capacity/2008/report.pdf]. This report also includes information on whether the landfill accepts in-state or out-of-state waste, and population statistics associated with various landfills. As another example, California also provides a publicly available database of MSW landfills that contain many of these data elements,including the surface area of the landfill, including total acreage and disposal acreage [*See, e.g.*, Cal. Solid Waste Information System, Facility/Site Listing, http://www.calrecycle.ca.gov/SWFacilities/Directory/SearchList/List?FAC=Disposal&OPSTATUS=Active&REGSTATUS=Permitted; http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0008/Detail/]. These example state reports demonstrate that the surface area, waste or waste disposal quantity and capacity are data elements already required to be reported, and EPA cannot consider this CBI. These state reports also include "operating hours." Although this is not broken out to describe whether this refers to operating hours of the gas collection system or destruction device, EPA may rely on this to find that this information is either required to be publicly reported, or is not considered to be confidential.

3. According to the 2010 State of Garbage in America Report, at 16, based on 2008 data, "at least 15 states require waste management companies and local government agencies to report annual tonnages" of MSW landfilled [see Ex. 32, Rob van Haaren, Nickolas Themelis and Nora Goldstein, BioCycle (2010), The State of Garbage in America: 17th Nationwide Survey of MSW Management in the U.S, http://www.seas.columbia.edu/earth/wtert/sofos/SOG2010.pdf]. Therefore, EPA cannot treat the amount of waste as CBI.

4. If a facility uses a landfill gas collection system to comply with the NSPS/Emission Guidelines, it is required to meet a certain level of efficiency, and based on this, it is unclear how EPA can determine that the level of gas control system efficiency is CBI.

Further, the fraction of methane contained in the landfill gas is itself a measurement of GHG emissions, and so is emission data which must be disclosed.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

27.0 SUBPART SS

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 38

Comment: For Electrical Transmission and Distribution Equipment Use and for Electrical Equipment Manufacture, EPA has proposed to defer data elements necessary to complete mass-balance calculations. *E.g.*, 40 C.F.R. Part 98.306(a)(2); 40 C.F.R. Part 98.456(a). There is no evidence of comments in the record that indicate any specific concern, or, indeed, any concern at all in disclosing the data elements EPA proposes to defer for Electrical Transmission and Distribution Equipment and Electrical Equipment Manufacture. Absent any evidence that disclosure of these data elements could cause covered facilities competitive harm, EPA can have no rational justification for delaying the reporting date.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

28.0 TIMELINE FOR DEFERRAL

28.1 General Comments

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 22

Comment: Any delay should be minimal. These companies really do have it in hand to solve their own problem. We would say that EPA should seriously consider simply requiring companies which don't wish to report their emissions equation inputs to switch to direct measurement as soon as possible. That should take at most about a year assuming that you start

in the next reporting cycle. So, again, not we think, a major problem – certainly not worth a delay twice as long as it took to write the rule.

Response: Today's action provides EPA time needed to fully evaluate whether and the extent to which potential competitive harm may result if any of the inputs to equations are made publicly available and to take further action if necessary. In the preamble to the deferral proposal, EPA noted that the business concerns that prompted EPA's decision to further evaluate inputs to equations before collecting them likely apply to some but not all inputs to equations. 75 FR 81350, 81354 (December 27, 2010). However, EPA proposed to defer reporting of all inputs to equations because EPA could not complete its evaluation of all of these data elements, including determining which of these data elements are already publicly available, before the original reporting deadline. 75 FR at 81355. As described more fully in the final rule preamble and in the docket memorandum, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA's evaluation process is extensive and contains many detailed steps. Today's final rule requires reporting of some inputs to equations by March 31, 2013, a year sooner than proposed. These data elements are those for which EPA either is further along or able to proceed more quickly in the evaluation process. However, for the remaining inputs, EPA either is less far along or the evaluation processes are more time-consuming. EPA is therefore deferring the reporting deadline for these inputs to March 31, 2015.

EPA disagrees that the inclusion of direct monitoring methods in some Part 98 subparts means that reporting of inputs should be deferred only one year; please see the response to EPA-HQ-OAR-2010-0929-0016, excerpt 1.

Commenter Name: Arthur N. Marin, Executive Director
Commenter Affiliation: Northeast States for Coordinated Air Use Management (NESCAUM)
Document Control Number: EPA-HQ-OAR-2010-0929-0017.1
Comment Excerpt Number: 3

Comment: In addition, EPA issued a call-for-information to aid in confidentiality determinations (75 Fed. Reg. 81366), with responses to the notice due by an extended deadline of March 7, 2011 (76 Fed. Reg. 3062). For entities with reasonable confidentiality concerns only, the NESCAUM states request that EPA take, at most, one year to review the information submitted, issue confidentiality determinations, begin collecting the inputs to emission equations, verify emissions reports, and release these data to the public. For all other entities, NESCAUM recommends that EPA proceed with the timeline established in the promulgated rule.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0006, excerpt 22.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[35]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 3

Comment: The three-year deferral is appropriate to afford EPA sufficient time to collect information, to complete extensive evaluation of that information, and, if EPA decides it is necessary to amend the GHGRP, to promulgate any such amendment through a notice and comment process. *See id.* at 81355. By providing itself the requisite time to evaluate the data and consider potential alternative methods for calculating and verifying emissions (that do not rely on CBI data), EPA can better meet its obligations to protect confidential information. In addition, the deferral will not impact the quality of the data collected under the GHGRP. EPA's proposed action "would not change any other requirements of Part 98, including the requirement that these data elements be retained as records in a form that is suitable for expeditious inspection and review." 75 Fed. Reg. 81354. The deferral is thus a critical step in ensuring that EPA protect highly sensitive business data, while establishing a reporting program that is accurate and transparent.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0006, excerpt 22.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 4

Comment: Although any deferral here is impermissible, if EPA maintains its present course it should act quickly. EPA should complete its review by the August 31, 2011, date in its interim final rule accompanying the proposed three-year deferral. *See* 75 Fed. Reg. 81,338 (Dec. 27, 2010). [. . .] Commenters demonstrate below that the number of potentially sensitive data elements is exceedingly small, and thus can be assessed by this summer at the latest.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0006, excerpt 22.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 39

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[35] Comment also included in EPA-HQ-OAR-2010-0929-0024.1, EPA-HQ-OAR-2010-0964-0023.1.

Comment: Initially, the deferral is far longer and far broader than it needs to be under any plausible reading of industry's concerns. The deferral is longer than it took EPA to develop the entire reporting rule – less than two years from the first Consolidated Appropriations Act to the final rule. Having conducted the research necessary to develop multiple tiers of reporting for each industry category, establish document review and verification systems, and to begin implementing the rule, EPA is well-placed to quickly make mid-stream corrections. EPA has canvassed the field of possible reporting methods, from purely default emission factor based approaches all the way to direct measurement, and included all these methods in the rule as it stands. The agency cannot justifiably take three years to make small adjustments to this work, particularly in view of the harm that this delay will cause to the public and GHG policy.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0006, excerpt 22.

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 17

Comment: Even supposing that we had some delay, the length of the delay is unconscionable. First of all, as a practical matter, the climate crisis is getting worse every day. We're already well above safe levels of carbon in the atmosphere and excellent data is needed to solve it as Congress recognized. We can't wait three years or if these delays stray on as delays often do once begun, for verifiable information on the country's biggest sources of carbon pollution.

As I've said, the EPA was directed to develop the entire reporting system in December of 2007. It had a proposed rule done again for the entire system in April of '09, less than a year and a half later, and a final rule by December of 2009. If EPA can develop the entire system in two years, it does not need three years to make small adjustments to it. This is particularly so because for the most part, EPA has already defined much of the universe of reporting options for a given sector.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0006, excerpt 22.

28.2 Deferral Timeline and States

Commenter Name: Stuart A. Clark, Air Quality Program Manager
Commenter Affiliation: Washington State Department of Ecology
Document Control Number: EPA-HQ-OAR-2010-0929-0015.1
Comment Excerpt Number: 2

Comment: The data elements deferred in EPA's actions are an integral part of Washington's mandatory GHG reporting program. Ecology must be able to replicate the calculations to

properly verify reported GHG emissions. Washington's public has made it clear that they want emissions to be properly verified. Creating a second reporting system to collect the data deferred by EPA increases everyone's costs and is not what was agreed upon through Washington's rule making public process. If the deferred data elements remain at the facility as proposed by EPA, then the only way Ecology could verify emissions from sources would be to review input data at the facility. This would significantly increase Ecology's workload, which would drive up reporting fees. Random agency verification of some facilities while not verifying the emissions from other facilities creates competitive disadvantages. Under Washington law, Ecology would still be required to disclose all available data, so the CBI protection desired by EPA's actions would not be achieved.

Response: Although EPA regrets any inconvenience to States that may result from this final action, we note that the deferred reporting of inputs to emission equations under EPA's Greenhouse Gas Reporting Program does not affect the ability of States to require facilities to report these data elements. For the response to the comment on verification, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11 in section 31.EPA disagrees with the commenter that the purpose of the deferral is "CBI protection." Please see the response to EPA-HQ-OAR-2010-0964-0006, excerpt 22.

Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 3

Comment: While we acknowledge that there may be specific data elements for which it may be appropriate to offer some accommodation to reporters that have raised specific concerns, our general position is that EPA should not defer the reporting of data elements for three years. Such a delay would mean that information that could be useful in developing GHG emissions control strategies at the state, regional or national level will be unavailable. In particular, MA will be working to implement the recently published *Massachusetts Clean Energy and Climate Plan for 2020* during this time period and, under EPA's proposal, would need to proceed without potentially useful data that we had assumed would be available. [Footnote: For example, information collected from fuel suppliers about fuels that are combusted in vehicles could be helpful in developing a low carbon fuel standard. The potential development of a regional low carbon fuel standard is discussed on pp. 56 — 57 of the plan, which is available at http://www.mass.gov/Eoeeddocs/eea/energy/2020-cleanenergy-plan.pdf.]

Response: Although EPA regrets any inconvenience to States that may result from this final action, we note that the deferred reporting of inputs to emission equations under EPA's Greenhouse Gas Reporting Program does not affect the ability of States to require facilities to report these data elements. For the response to this comment, please see the responses to EPA-HQ-OAR-2010-0964-0006, excerpt 22 and EPA-HQ-OAR-2010 0929-0022.1, excerpt 2.

Commenter Name: Stuart A. Clark, Air Quality Program Manager
Commenter Affiliation: Washington State Department of Ecology
Document Control Number: EPA-HQ-OAR-2010-0929-0015.1
Comment Excerpt Number: 1

Comment: The greatest benefit of the substantial overlap between Washington and EPA's GHG reporting programs is that a facility will only have to submit one report that fulfills the reporter's obligations under both programs. EPA and Washington have been collaborating since 2009 to make the small modifications necessary to EPA's Electronic Greenhouse Gas Reporting Tool (e-GGRT) to facilitate a single report that would meet the requirements of both programs, including facilities required to report to Washington but below EPA's reporting threshold. This significantly reduces costs to Washington's reporters with a minimal cost to EPA while increasing the compatibility of the programs and allowing the public, Washington, and EPA a single access point to an expanded, comparable data set.

A single report to both programs only works if both programs collect the same data. Prior to the December 17 actions this was the case, but EPA cannot forward deferred data to Washington. This means that Ecology must either develop another method for reporters to submit data to Washington or amend our rules to defer reporting of the specified data elements. Both options result in significant costs to Washington's reporters and do little to protect the data from public disclosure under Washington's laws. Any changes resulting from EPA's Call for Information on Inputs to Emission Equations Under the Mandatory Reporting of Greenhouse Gases Rule would likely lead to an additional round of Washington rule revisions and/or database changes.

Response Although EPA regrets any inconvenience to States that may result from this final action, we note that the deferred reporting of inputs to emission equations under EPA's Greenhouse Gas Reporting Program does not affect the ability of States to require facilities to report these data elements.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 14A

Comment: Ironically, CARB's robust emissions reporting and verification system would be threatened if EPA moved forward with its proposed deferral. CARB has recently proposed to revise its reporting rule to allow most reporters to fulfill their obligations by complying with EPA's rule. As CARB explains, "[i]n order to ease confusion for reporters and to help ensure good data quality, the proposed regulation directly references the U.S. EPA requirements, telling reporters where they must comply with specific applicable sections of the federal rule to meet ARB requirements. We then stipulate any needed limitations, modifications, or additions." Ex. 16 at 5-6.

This rule, in other words, assumes that EPA will fully enforce the federal system. If EPA instead defers reporting, CARB will not be able to go forward with its rulemaking efforts to reduce regulatory burdens. EPA claims to be "committed to working with State and regional programs to coordinate implementation of reporting programs, reduce burden on reporters, provide timely

access to verified emissions data, establish mechanisms to efficiently share data, and harmonize data systems to the extent possible." 74 Fed. Reg. at 56,266. It should not undermine that commitment here.

Response: Although EPA regrets any inconvenience to States that may result from this final action, we note that the deferred reporting of inputs to emission equations under EPA's Greenhouse Gas Reporting Program does not affect the ability of States to require facilities to report these data elements.

29.0 GENERAL COMMENTS ON INPUTS

29.1 General comments that inputs are sensitive and describing efforts to protect inputs

Response: Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[36,37]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 24

Comment: API's members have taken great efforts to ensure that their competitors do not have access to CBI, in order to prevent one company from obtaining an unfair competitive advantage over others. Even where companies have provided certain data elements to federal agencies pursuant to regulatory requirements regarding disclosure of such data to the government, it remains necessary to shield such competitive information from other companies to protect the confidentiality of sensitive business information. This is not only sound policy and basic business sense, but mandated in the law.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[38,39]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 29

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[36] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[37] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.
[38] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[39] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

Comment: First, with these comments, API members are properly asserting their business confidentiality claim with respect to this information. *Id.* § 2.208(a). Second, API members have taken and will continue to take reasonable measures to protect the confidentiality of the data elements in this category. *Id.* § 2.208(b). Notably, the Department of Energy's Energy Information Administration (EIA) appropriately provides confidential treatment for facility-level fuel production and distribution information. *See* Petroleum Supply Monthly, Appendix B: Explanatory Notes, March 2007. Indeed, EIA is prohibited from making public or sharing disaggregated or entity-specific fuel use or distribution data. *See* 44 U.S.C. § 3501 note at Sec. 208 (preventing disclosure of information in identifiable form where information was submitted under a pledge of confidentiality).

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[40]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 23

Comment: There are sound policy reasons for favoring protection of these inputs data. To not protect the "inputs to emission equations" data elements from disclosure could raise antitrust concerns and would violate the principle of aggregation. As President Obama recently emphasized in an Executive Order, agencies should attempt to avoid imposing regulatory requirements that may be inconsistent. *See* The White House, *Improving Regulation and Regulatory Review – Executive Order*, at Sec. 3 (Jan. 18, 2011). Here, EPA should avoid imposing a requirement to disclose inputs data as such disclosure would be inconsistent with statutory requirements and policies favoring competition. The data elements in this category include cost- and output-related information that is a significant determinant of prices (including various information relating to fuel production and distribution, which provides details about inputs, the nature and location of sources, and plant operations). The antitrust laws generally prohibit competitors from sharing price, output, and other information that may facilitate anticompetitive coordination in prices or production and thereby harm consumers. The exchange of price information is of particular concern. *See United States v. Container Corp. of America*, 393 U.S. 333 (1969); Federal Trade Commission (FTC), FTC Guide to the Antitrust Laws, Dealings with Competitors: Spotlight on Trade Associations, *available at* http://www.ftc.gov/bc/antitrust/trade_associations.shtm. In addition, because the antitrust laws prohibit agreements to restrict output, *see United States v. Andreas*, 216 F.3d 645,666–69 (7th Cir. 2000), a similar set of antitrust concerns applies to information-sharing thatmay facilitate coordinated output decisions. EPA's proposed disclosure of "inputs to emission equations" would violate the principle that shared data should be "sufficiently aggregated" and should "not allow recipients to identify" the competitive information of "any particular provider." In

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[40] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

comments to EPA, the FTC specifically highlighted its concerns about EPA's proposed release of "inputs to emission equations" and other sensitive data elements: In the absence of this safeguard, producers are more likely to learn the specifics of individual competitors' ongoing operations, and such knowledge could have an impact on prices or output. The risk of causing anticompetitive harm is increased because some competitively sensitive aspects of fuel production may persist over time. Three categories of data that the EPA proposes to make public contain potentially sensitive competitive business information: "inputs to emission equations,""unit/process 'static' characteristics that are not inputs to emission equations," and "unit/process operating characteristics that are not inputs to emission equations." These three categories include data on production, throughput, raw material consumption, capacity, and future operations. *Public disclosure of such facility- and firm-specific sensitive business information may make it easier for reporting companies to either tacitly or explicitly coordinate their pricing decisions.* This is especially true when certain market conditions are present, such as transparency, high concentration, impediments to entry, homogeneous products, and low elasticity of demand. *See* Attachment 5, Comments of the FTC to Docket No. EPA-HQ-OAR-2009-0924, at 1-2 (Sept. 30, 2010) (emphasis added; internal footnotes omitted). As a result of these concerns, the FTC expressly recommended that EPA treat the "input to emission equations" data elements as confidential. *Id.* Because the FTC is the Federal agency specifically charged with maintaining competition and safeguarding the interests of consumers, EPA should be particularly mindful of its advice regarding the risks of disclosing this sensitive data. The Associations urge EPA to follow the recommendation of the FTC and afford CBI protection to the "inputs to emission equations."

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA also appreciates the comments from the FTC. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into consideration in determining the likelihood of each input to cause substantial competitive harm if released.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 2

Comment: Most industries consider the amount and chemical identity of raw inputs, including reactants for chemical synthesis, to be sensitive business information. Specifically, raw inputs mean the amount of material including chemical substances, ore, fuel, inks or coatings, wood, pulp, or any basic building material that is burned, applied, mixed, reacted or processed to produce a final commodity for sale to a downstream buyer. Thus a chemical intermediate, an auto mechanism including but not limited to an auto part or pollution control, is frequently associated with a proprietary process that gives the manufacturer an edge in the global economy because of the attributes, the speed of production or fabrication or application, the production component itself, or the amount or another feature of the raw component or its conversion for making that product for sale.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 8

Comment: The Notice asks commenters to describe measures currently taken to keep such data confidential. In some industries it is common for information on production, raw material throughput, fuel consumption, process configuration and raw material purchases to be safeguarded as valuable intellectual property/confidential business information and protected not only from the public, including competitors, but also shareholders and all but a limited number of company officials. This is accomplished by a series of mechanisms that are as simple as stamping all Process Flow Diagrams (PFD) and information acquired from proportional–integral–derivative controllers (PID) as confidential business information and/or protected intellectual property, and limiting its availability physically in locked cabinets in secured areas of corporate headquarters or engineering departments –to- more sophisticated security methods for limiting access to such information via password-protected servers. Not only is access to these areas limited to the public, but it is also limited to specified plant personnel through security coding and other access interlocks to prevent disclosure to all but a few authorized people with a need to know the information in a company. Also, computer maintained formulas and raw materials inventories are password protected., It is not unusual for such information to be compartmentalized on different servers in order to further narrow access only to limited groups of individuals within a company. One question EPA honed in on was how this information is different than information on production that a company may report in shareholder reports and publicly to the Securities Exchange Commission. The principal difference is that, for publicly held companies, production is not reported per se, but rather sales are reported. For privately held companies, no production information is required to be filed publicly with the SEC. Further to the extent production information is reported to the SEC or shareholders, it is not reported by plant or country necessarily, and certainly not by the process or fabrication step which are the critical sensitive business elements. In other words, the total tons of aluminum made in a year or number of cars coated in a year and sold in the U.S. by a company may not be the critical sensitive business information. Rather, the sensitive information may be the amount of production of a chemical at a given facility or in a given country. It may also be the rate of coating per the fuel used or the number of coats applied and dried at a time in an infrared drier, or the tons of carbon consumed per tons of aluminum ingot manufactured that exposes a manufacturer to competition from others within the automobile or aluminum industry. Raw materials purchased and maintained over the years are not ever reported because of leverage on supplier pricing. Similarly, in the process of converting pulp into tissue and coating the tissue and assembling it into a diaper, the conversion rate, the fuel utilized at a paper press dryer, and the various processing drying steps and application of inks or coatings, can be back-calculated with fuel for each step. Consequently, businesses safeguard this information, and production

information from each step is separately collected throughout a plant by production managers who assess it and report it to corporate headquarters through private and secure channels.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 17

Comment: DuPont maintains a Trade Secret Policy, which is designed to assist DuPont employees and businesses in identifying and protecting trade secrets. It is DuPont policy that DuPont employees and DuPont contractors must be acutely aware of trade secrets around them, they must take measures to effectively maintain DuPont trade secrets, and they must treat the trade secrets of others properly.

Adherence with this policy is a condition of employment for DuPont employees. The DuPont Information Security Organization (DISO) has developed a comprehensive set of standards that implement the Trade Secret Policy in order to assure the security of the Company's business sensitive information.

In particular, the first three procedures form the basis of trade secrets or confidential business information. DuPont uses a standard definition of what information may be identified as a trade secret. This definition is, "Information should be regarded as a trade secret where the information: (i) has been developed or acquired by DuPont, (ii) is kept confidential, and (iii) gives DuPont an opportunity to obtain an advantage over others that do not know or use the information." After information is identified as a trade secret, the information is classified from the most sensitive to the least sensitive as "DuPont Special Control", "DuPont Confidential", or "Internal Use Only". Information that has been prepared for public disclosure is not trade secret information and is classified as "Public". Lastly, Maintaining Trade Secrets section instructs employees on how to properly protect trade secrets. Some of the methods to protect trade secrets include:

- "Need-to-Know" disclosure of information to only those employees who need access to the information in order to be prepared to take a specific action or to perform a specific task in accordance with their assigned job functions and responsibilities.
- Masking of information with codes
- Compartmentalization of information on complex processes so that groups of employees have access to only part of the trade secret information.
- Marking documents according to the classification of the information in the document.
- Keeping paper documents in locked file cabinets.
- Storing electronic information only on Company computing equipment.

- Restricting access to electronic information to those employees who have a need to know.
- Disclosing trade secret information to third parties only under a "Confidential Disclosure Agreement".

DuPont Information Security Tools

The DuPont Information Security Organization (DISO) has also developed a set of tools to help employees comply with the Trade Secret Policy and standards. One example is the Risk Classification Matrix Chart. All information must be classified according to the following chart choosing one classification from each side of the chart.

A Sensitivity Classification Decision Tree and a Risk Tool were developed to help "information asset" (*e.g.*, document) owners perform this classification. The decision tree assists in selecting the appropriate sensitivity level for the information assets. The Risk Classification Tool allows asset owners to classify their assets based on two criteria: the allowable accessibility to the asset (ranging from the general public to a restricted list) and the consequences of a security breach (from none to devastating).

Based on the classification of the information asset, the owner will determine, and then implement the appropriate level of security measures to protect the asset. The security measures in this document represent the minimum baseline protection which will be in place to protect most DuPont information assets using a Risk Control Chart that describes the protective measures that must be taken for different types of information assets and processes given the criticality and sensitivity classification.

Employee Training in Information Security Procedures and Practices

DuPont makes a concerted effort to train employees in the procedures to protect DuPont's trade secrets and confidential information. This training is developed corporately by the DISO Education & Awareness Leader. Training materials are posted on the DISO Intranet site at the Trade Secret Protection Tool Kit portal (see Attachment D). Training materials consist of Powerpoint® presentations, videos, and a library of documents about trade secret protection. The training materials can be accessed by any DuPont employee, but the Trade Secret Risk Managers are charged with the responsibility to ensure that training materials are disseminated and the training is carried out throughout their Business Units.

An enhancement to the training effort is an annual trade secret protection poster campaign. These posters communicate important trade secret protection information, procedures, and employee responsibilities in a visual format. The poster campaigns are designed by the DISO Education & Awareness Leader and implemented by the Trade Secret Risk Managers.

Finally, each Trade Secret Risk Manager may augment the corporate education and awareness programs with communications to management and employees in their Business Unit. These communications may be monthly or quarterly Newsletters featuring information about trade secret protection, reminders about procedures, recognition for advancing trade secret protection, etc. Communications may be single-topic reminders disseminated through internal e-mail.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: David W. Peightal, P.E., Environmental Manager
Commenter Affiliation: Dakota Gasification Company
Document Control Number: EPA-HQ-OAR-2010-0964-0037
Comment Excerpt Number: 2

Comment: DGC treats and considers the exact products data, volumes, and laboratory analyses confidential in order to protect valuable proprietary methods and processes utilized at the Great Plains Synfuels Plant. There are separate entities that have interest in designing and building similar plants, and any information they receive could aid their efforts in potentially competing with DGC. Reporting under the GHG Mandatory Reporting Rule will include business sensitive material such as unique emission factors, lab analysis, specific volumes used to track quantities, specific heating values of fuels and materials, exact carbon content of fuels, molecular weight of mixtures and fuels, and chemical compositions of gases/liquids that should be considered as confidential . The Rectisol process used in DGC's CO2 capture is a unique and proprietary process when coupled with the gasification process. The quality of DGC's pipeline CO2 is a trade secret, the disclosure of which could negatively affect future marketing opportunities. DGC does not want to release any complete analysis of any process stream of a proprietary nature. In the past, DGC has shared general numbers of GHG emissions but never exact components or carbon contents of specific process streams.DGC does not disclose detailed information such as this in any reports that are made public . DGC takes great care not to divulge this type of information to vendors or visitors to the plant or by phone, unless the other party has signed a secrecy agreement and DGC has determined that they have a specific and valid use for such information. Safeguarding this information is a critical concern for the future of DGC's operation.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 13

Comment: The information being reported under these subsections may not have been placed in the public domain. As indicated earlier, emissions are not always associated with the manufacture of a specific product. More importantly, the data elements in conjunction with reactant inputs and other outputs will provide one of the information pieces that is necessary to determine the process yield. It provides information on manufacturing formulas and process yields that could be used by a competitor to try to duplicate the manufacturing process. The mass and composition of the process inputs and outputs could also be used to determine the presence and elemental composition of proprietary additives. It is not public information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

29.2 General comments that inputs are sensitive and release of inputs would cause competitive harm

Commenter Name: Angus E. Crane, Executive Vice President, General Counsel
Commenter Affiliation: North American Insulation Manufacturers Association (NAIMA)
Document Control Number: EPA-HQ-OAR-2010-0929-0033.1
Comment Excerpt Number: 3

Comment: The specific type of data required by EPA of fiber glass manufacturers is the very type of data to which the Federal Trade Commission ("FTC") identified as having possible antitrust implications in its September 30, 2010 comments to EPA on the Agency's "Proposed Confidentiality Determinations." The FTC noted that EPA historically determined whether information qualified for confidential treatment on a case-by-case basis. EPA, however, concluded that the volume of greenhouse gases would make a case-by-case determination unduly burdensome to the Agency. In response to that decision, the FTC stated:

> The FTC is concerned, however, that the proposal may allow for the public release of competitively sensitive information. Specifically, because of the potential risk to competition, we suggest that data reported under three categories – "inputs to emission equations," "unit/process 'static' characteristics that are not inputs to emission equations," and "unit/process operating characteristics that are not inputs to emission equations," – may warrant confidential protection.

To clarify that these categories identified by the FTC impact glass companies, it is helpful to refer again to the FTC's comments which state that "[i]nputs to emission equations include, for example, volume of fuel combusted per year; production/throughput and raw material consumption, such as petrochemical production; characteristics of raw materials, products, and by-products; and facility operating information."[*See* 75 Fed. Reg. at 39,108-09 (describing types of data that would fall within the "inputs to emission equations" data category).] These are the very data points required of glass companies.

The FTC explains why public disclosure of sensitive information creates antitrust concerns:

[S]haring information among competitors may increase the likelihood of collusion or coordination on matters such as price or output [FTC/DOJ GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS §3.31(b).] Coordinated interaction among competitors includes collusive agreements, but it can also include conduct not necessarily condemned by the antitrust laws [Footnote:This includes parallel accommodating conduct by rivals in which "each rival's response to competitive moves made by other is individually rational, and not motivated by retaliation or deterrence, nor intended to sustain an agreed-upon market outcome, but nevertheless emboldens price increases and weakens competitive incentives to reduce prices or offer customers better terms." FTC/DOJ HORIZONTAL MERGER

GUIDELINES §7.] Firms that engage in coordinated interaction are better able to predict, even absent explicit agreement, how rivals will react to price changes [Footnote: The FTC recognizes that rivals in the petroleum and other industries collect market intelligence to anticipate and respond to rivals' output and pricing decisions. *See, e.g.*, *In re* Chevron Corp., FTC Docket No. C-4023, Analysis of Proposed Consent Order to Aid Public Comment (Sept. 7, 2001) ("Integrated refiner-marketers carefully monitor the prices charged by their competitors' retail outlets, and therefore can readily identify firms that deviate from a coordinated or collusive price.").].

The potential for information disclosure to harm competition will depend on the structure of the affected market and the type of information disclosed [Footnote: *See* Todd v. Exxon Corporation, 275 F.3d 191, 199 (2d. Cir. 2001) (quoting U.S. v. United States Gypsum Co., 438 U.S. 422, 441 n. 16 (1978)) ("A number of factors including most prominently the structure of the industry involved and the nature of the information exchanged are generally considered in divining the precompetitive or anticompetitive effects of [the information disclosed.]"); *see also* FTC/DOJ GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS §3.31(b).].

Given these antitrust concerns, NAIMA urges EPA to abandon the collection of data not directly related to actual greenhouse gas emissions. Specifically, the information requested of glass companies qualifies as confidential business information and in some instances could constitute trade secrets. NAIMA is concerned that many of these requests seek information that is proprietary, confidential business information and market sensitive. If this information, despite EPA's best intentions and controls, were inadvertently divulged, it could potentially impact the competitive advantage in the marketplace of many companies.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA also appreciates the comments from the FTC. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into consideration in determining the likelihood of each input to cause substantial competitive harm if released.

Commenter Name: Angus E. Crane, Executive Vice President, General Counsel
Commenter Affiliation: North American Insulation Manufacturers Association (NAIMA)
Document Control Number: EPA-HQ-OAR-2010-0929-0033.1
Comment Excerpt Number: 7A

Comment: Protection of confidential business information is critical to protecting trade secrets. The public disclosure of market sensitive data could prove economically detrimental and have antitrust implications.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[41]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 6

Comment: EPA should conclude that the "inputs to emission equations" data elements are CBI and protected from disclosure. As demonstrated below, these inputs easily satisfy EPA's five-part test for confidential treatment, *see* 40 C.F.R. § 2.208. At the outset, however, the Associations emphasize that reporters should not have to submit inputs to equations to the Agency at all. Rather, if EPA wishes this data be inspected for purposes of verifying the GHG emissions reported under the GHGRP, it could be done on a case-by-case basis, in a manner that would not jeopardize the confidentiality of the data.

EPA's regulations specify that business information is entitled to confidential treatment if:

(a) "[t]he business has asserted a business confidentiality claim which has not expired by its terms, nor been waived nor withdrawn;"

The Associations and their members have already asserted their confidentiality claims. In response to EPA's proposed confidentiality determinations, "[a]lmost all commenters from industry wrote that some or all inputs to emission equations (which include product compositions, raw materials used, fuel types and quantities, production volumes, and other process-specific information) are considered trade secrets or otherwise sensitive business information, and that making those inputs publicly available would cause them serious competitive harm." 75 Fed. Reg. at 81534.

(b) "[t]he business has satisfactorily shown that it has taken reasonable measures to protect the confidentiality of the information, and that it intends to continue to take such measures;"

As explained in the Associations' comments, their members have taken and will continue to take reasonable measures to protect the confidentiality of the data elements in this category.The "inputs to emission equations" data has historically been protected, in part, to address the antitrust concerns that would arise from disclosing this sensitive facility- and firm-specific information.

For example, the Associations' members maintain the confidentiality of fuel content and quantity data by not releasing it to anyone outside their companies.

(c) "[t]he information is not, and has not been, reasonably obtainable without the business's consent;" EPA could not otherwise obtain this data without the consent of the Associations' members.

[41] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964-0023.1.

(d) "[n]o statute specifically requires disclosure of the information;" No statute requires the disclosure of this information.

(e) either the business shows that disclosure of the information "is likely to cause substantial harm to the business's competitive position" or, if the information is voluntarily submitted, "its disclosure would be likely to impair the Government's ability to obtain necessary information in the future."

Disclosure of the "inputs to emission equations" data elements is likely to cause substantial harm to the Associations' members' competitive positions. In announcing the proposed deferral, EPA summarized industry's concerns at 75 Fed. Reg. at 81354, including that "public disclosure of production volumes and process-specific information could give competitors insight into sensitive operational limits and process capabilities," while "disclosure of the type, composition, and relative proportions of raw materials used would reveal the specific formula used to manufacture . . . products." Another concern is that "product composition data reveal information about . . . products' performance characteristics," including revealing details about production costs. *Id.* The Associations' comments elaborate on these concerns. *See* Attachments 1-3.[42]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[43,44]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 28

Comment: Many of the data elements that EPA includes in its "Inputs to Emissions Equations" category are CBI. These data elements divulge information about facility processes and operations, including information about fuel supplies, unit throughput, and production volumes. Disclosing these data elements would reveal confidential business information related to ownership interests, processes employed by individual facilities, and business practices at individual facilities. If a competitor is provided access to this information, it can obtain a competitive advantage over the facility by reverse engineering information about the facility's operations and business strategies. This competitive information must be protected as CBI in the final rule. All five elements for evaluating whether information is entitled to confidential treatment, set forth above, are satisfied. *See* 40 C.F.R. § 2.208.

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[42] Comments in Attachment 1-3 have been parsed separately.

[43] This commentis incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[44] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[45,46]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 31

Comment: Disclosure of the requested information is likely to cause substantial harm to API members' competitive positions. *Id.* § 2.208(e). The disclosure of process-specific information and production volumes would reveal sensitive process capabilities and operational limits. In addition, if that information were combined with other publicly available information, disclosed under air quality permits and CAA Section 112(r) hazard assessments, competitors would have a detailed picture of a facility's operational capabilities. This information could expose a facility's business position, weaknesses, or vulnerabilities, which could then be used by competitors to disadvantage the reporting facility. For example, the disclosure of unit-specific throughputs and unit-specific fuel use could give competitors a detailed understanding of a facility's process capability and create an advantage in optimizing future crude or product supply. Disclosure of fuel use and process volumes would also reveal a refinery's process operational capacity, limits, bottlenecks, and options to reconfigure in response to market change.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[47,48]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 32

Comment: The disclosure of operational data and throughputs would enable equipment/technology providers to quantify the facility's capabilities. This information could be used against the refiner in future negotiations to upgrade or replace its equipment. For these reasons, the "inputs to emission equations" data requested of petroleum refineries should receive confidential treatment.

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[45] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[46] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.
[47] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[48] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[49,50]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 46

Comment: EPA should determine that much of that improperly classified data is actually confidential business information. Many of the data elements that EPA includes in its "Inputs to Emissions Equations" category are properly CBI. These data elements divulge information about facility processes and operations, including information about fuel supplies, unit throughput, and production volumes. Disclosing these data elements would reveal confidential business information related to ownership interests, processes employed by individual facilities, and business practices at individual facilities. If a competitor is provided access to this information, it can obtain a competitive advantage over the facility by reverse engineering information about the facility's operations and business strategies. This competitive information must be protected as CBI in the final rule.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[51,52]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 47

Comment: Unit-specific data contain competitively sensitive data, related to key competitive parameters. These include unit throughput, production rates, capacity, fuel usage, and other sensitive competitive data elements. In the refining industry, participants engage in competitive intelligence vis-à-vis their competition against other participants by modeling the performance of competing refineries. At present, the data elements are not publicly disseminated, and so assumptions must be used for them in the models. But under the EPA proposed rulemaking, these data elements would be released with no protective mechanisms, and would be used by

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[49] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0044.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[50] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

[51] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0036.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[52] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

competitors in their models. From these models competitors can derive cost, price, and operating margin data, as well as strategic plans, operational plans, and scheduling information. All of these raise substantial antitrust risks as detailed above.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Charles D. Johnson, Vice President, Environment Health & Safety
Commenter Affiliation: The Aluminum Association, Inc.
Document Control Number: EPA-HQ-OAR-2010-0929-0025.1
Comment Excerpt Number: 2

Comment: In comments filed on September 3, 2010, The Aluminum Association requested EPA to retain certain data in question under CBI protections, due to the fact that production levels can easily be back calculated from that data. As noted, production is a key indicator of economic performance and is only reported by the Association for member companies in aggregated form to protect competitive interests.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Burl Ackerman, Environmental Engineering Manager
Commenter Affiliation: J. R. Simplot Company
Document Control Number: EPA-HQ-OAR-2010-0929-0028.1
Comment Excerpt Number: 1

Comment: Public disclosure of process-specific information will give competitors insight into business models and operations allowing them to make changes to their operation to better compete.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Ritts
Commenter Affiliation: National Environmental Development Group, Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 1

Comment: NEDA/CAP submits to EPA that the critically sensitive nature of information about processes, raw materials and production rates used to calculate GHGs, which EPA's proposed July 7th rule would have made available instantly over the agency's website, would substantially harm the U.S. economy. If it is posted by the Agency, competitors at home and abroad can and

will use this information to steal trade secrets on proprietary processes through reverse engineering and to engage in price fixing by calculating production costs to undercut competitors in the marketplace.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 7

Comment: Another area of particular concern regarding sensitive information that could negatively impact a company's competitive position is the change in the year-to-year information regarding fuels. For instance, the change in the types of fuels used over the years can reveal the facility's long-term business plan. Fuel switching from one type of fuel to another (e.g. from using coal to using other solid or gaseous fuels) could reflect a facility's strategic effort to move towards another business opportunity. For example, the installation of a new turbine generator, along with switching from using coal to natural gas or biomass could indicate the facility's intent to sell "green electricity." Similarly, building new generation equipment for processing solid waste or gas also reflects on the availability of the alternative fuels within the local region, an issue of financial sensitivity, particularly with state requirements for "renewable fuel portfolios" and dwindling availability of or access to certain types of fuels. Information that a facility has potentially locked in low cost in their local area could also indicate a change (i.e. potentially increase) of such fuels within a local region, providing relative competitive advantages and disadvantages to competitors for those fuels. Such changes also affect a facility owners' financial profile, resulting in business damage if the information is released.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 9

Comment: Another question EPA sets out in the Notice requesting data is whether and how competitors could use a particular input to discern sensitive information. EPA requests that a company "specifically describe the pathway by which this (disclosure of sensitive information could occur) and explain how the discerned information would negatively affect a company's competitive position. EPA also requests that the company "discuss how this data element may

differ from similar data that is already publicly available." We can only aver that manufacturers scour Clean Air Act applications that become public online or are inadvertently slipped into a file room "red-well" or in a general docket room for a competitor's plant. Our members, like other manufacturers collect and study information unwittingly added by regulators in documents like a Title V Statement of Basis for a plant. Uploading this information automatically onto a public website will provide easy access for piracy and other anti-competitive practices involving pricing by not only competitors but also by suppliers of raw materials including but not limited to fuels. It also can be utilized by customers to undercut pricing and leverage other manufacturers, a point made elegantly by the Federal Trade Commission in its comments to EPA on this rulemaking.

The ability to protect certain information from competitors is essential to defending the competitive position of companies in the marketplace. Protection of intellectual property, including confidential business information and trade secrets, is real and should not be judged as being hypothetical. IP is highly competitive and vigorously litigated. EPA's need to have such information, questionable at best (and we submit, not defensible on the basis of transparency to the public) must be balanced with the reality that protection of confidential business information is critical to the maintenance of a level playing field in the marketplace.
To wit, NEDA/CAP submits that EPA itself did a good job of summarizing the economic harm in the July 7, 2010 proposal at 75 FR 39115:

> "The disclosure of annual production quantities of products, used in conjunction with other publicly available data related to capacity, provides insight to a firm's operational strengths and weaknesses. Competitors could determine at what percent capacity a firm is operating, which can reveal information on the financial and competitive strength of the firm. For example, it could reveal that a manufacturer is operating well below capacity and likely experiencing financial difficulties. Having such information could allow competitors to narrow the competition by adjusting their prices to the further detriment of the reporting company, or to formulate other competitive strategies or corporate acquisition strategies to the detriment of the reporting company. Having information on the percent of capacity at which a firm is operating could also reveal whether a manufacturer has existing capacity available to take on new customers in a growing market or is already at their maximum production and would need to invest capital to expand capacity in order to produce more. Having such information could give competitors insights to make competitive decisions on expanding their own production rates or altering their pricing strategies to the detriment of the reporting company."

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 3

Comment: The protection of CBI is not only sound policy and basic business sense, but mandated by law. Disclosure of the requested information is likely to cause substantial harm to API members' competitive positions. The disclosure of process-specific information and production volumes would reveal sensitive process capabilities and operational limits. In addition, if that information were combined with other publicly available information, disclosed under air quality permits and CAA Section 112(r) hazard assessments, both domestic and international competitors would have a detailed picture of a facility's operational capabilities. This information could expose a facility's business position, weaknesses, or vulnerabilities, which could then be used by competitors to disadvantage the reporting facility. Examples of API's specific concerns are summarized here and outlined in the tables provided in Section 4. The release of detailed data on US refinery operations capacity and limits will:

1. Hurt the U.S. domestic refining industry through increased costs,
2. Advantage foreign refiners and importers, and
3. Create opportunities for non-competitive behavior resulting in increased costs to the consumer.

A variety of companies or entities (both competitors and partners) may have specific motivations to be interested in detailed refinery data to better understand the refinery's business positions and to advantage their own businesses.

- Local domestic refiner - looking to increase production rates by increasing local market share.
- Regional domestic refiner - looking to increase production rates through arbitrage of product to other regions.
- International refiner - looking to increase production rates by sending products to the U.S. with little regard for lowering the cost to customers or the preservation of U.S. jobs.
- Traders - looking to create profits by recognizing trade flows (shortages and deficits) while demanding higher trading margins.
- Imports / Blenders - looking to identify opportunities to buying cheap components and blend to finished products.
- Operators of Pipelines / Terminal - looking to create profits by recognizing trade flows and demanding higher tariffs or tank rental rates.
- Suppliers / purchasers of Chemicals - trying to get the highest price possible for chemicals supplied to refineries and the lowest acquisition price for chemicals purchased from refineries (i.e. natural gas or hydrogen suppliers, sulfur customers).
- Suppliers of services - trying to create profits by negotiating higher prices for services provided (i.e. skilled turnaround labor, cranes, scaffolders) As a result, you could see increased costs for refining in the form of higher feedstock costs, lower product netbacks, higher costs to access logistics outside the refinery, increased turnaround (TAR) costs. Some of the cost increases will erode–already thin–domestic refinery margins. In the end, domestic refining and consumers will lose with a further dependence on imports.

Response: EPA thanks the commenter for their input. For the response to this comment, please

see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Paul Noe, Vice President, Public Policy and Robert Glowinski, President
Commenter Affiliation: American Forest & Paper Association (AF&PA) and American Wood Council (AWC)
Document Control Number: EPA-HQ-OAR-2010-0964-0012.1
Comment Excerpt Number: 1

Comment: It is not the individual data points, but the aggregation of all of the data into one place which causes the harm. While a case could be made that the disclosure of an individual data point, when viewed in isolation, may not cause significant harm to the business interests of a disclosing company, the same does not hold true for the compilation of data points that are required to estimate a facility's greenhouse gas emissions under the Reporting Rule. It is this large collection of data points, which EPA proposes to make readily available to the public as a single package, that would pose substantial harm to the business interests of those facilities subject to the Reporting Rule. For instance, the compilation of data points used to calculate greenhouse gas emissions pursuant to the Reporting Rule collectively represents an inside look at the energy use and efficiency of a disclosing company's facility. It cannot be disputed that energy use constitutes a very significant manufacturing cost for our facilities. Like other data concerning operational costs, our members treat this data as sensitive proprietary material in order to prevent domestic and international competitors from using such data in competitive pricing decisions. Although we understand that, after significant research and effort, it may be possible to assemble a similar collection of some or all of the data points from various federal and state databases, we believe that it is not appropriate for the federal government to make such a compilation readily available.

Not only are we concerned about this confidential information being available to domestic competitors – but we are particularly concerned that such a compilation will enhance the ability of our international competitors to gain insight into a very significant manufacturing cost component for our facilities which could be used in competitive pricing decisions. The U.S. International Trade Commission (ITC), has recognized the significance of, and thus has afforded special protection to, compilations of company-specific data. According to its "Antidumping and Countervailing Duty Handbook," the ITC's practice in presenting and analyzing statistical data "is that aggregate data are confidential if they include only one or two companies, or if they include three or more companies and one company accounts for at least 75 percent of the total or two account for at least 90 percent of the total." The Handbook further states that "in no case will the Commission disclose individual company data…." AF&PA and AWC urge EPA to afford the collection of data points underlying the emission estimates required by the Reporting Rule the same level of protection from disclosure.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Paul Noe, Vice President, Public Policy and Robert Glowinski, President
Commenter Affiliation: American Forest & Paper Association (AF&PA) and American Wood Council (AWC)
Document Control Number: EPA-HQ-OAR-2010-0964-0012.1
Comment Excerpt Number: 2

Comment: Protecting these data is not unlike the requirement that the government protect personally identified information (PII). Several of the data points required by the Reporting Rule – in particular, production data and fuel use – pinpoint the specific strategies that individual companies use to make their products. This company-specific data should be afforded the same protection that the government currently affords to individuals.

This protection is further warranted on account of the anti-trust issues that could be implicated by the distribution of company-specific data regarding production and fuel use. While our members work hard to achieve full compliance with the antitrust laws, less scrupulous companies could use these data to collude to price fix. This threat is real, as evidenced by the Federal Trade Commission's (FTC) following comments on the proposed rule:

Three categories of data that the EPA proposes to make public contain potentially sensitive competitive business information: "inputs to emission equations," "unit/process 'static' characteristics that are not inputs to emission equations," and "unit/process operating characteristics that are not inputs to emission equations." These three categories include data on production, throughput, raw material consumption, capacity, and future operations. Public disclosure of such facility- and firm-specific business information may make it easier for reporting companies to either tacitly or explicitly coordinate their pricing decisions. This is especially true when certain market conditions are present, such as transparency, high concentration, impediments to entry, homogeneous products, and low elasticity of demand.

Because many industries subject to the GHG reporting requirements share at least some of these market conditions, making confidential business information (CBI) public may lead to collusion that harms consumers through higher prices, decreased quality, and decreased innovation. Therefore, the FTC recommends that the EPA treat data that is an input to emission equations as confidential…. (Comments of the Federal Trade Commission, September 30, 2010)

Clearly, the FTC is concerned about the ramifications of EPA's proposed rule for commerce and trade. AF&PA and AWC share those concerns.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. EPA also appreciates the comments from the FTC. As explained in the memorandum to the docket describing EPA's process for evaluating the inputs to emission equations, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations," EPA will take these comments into consideration in determining the likelihood of each input to cause substantial competitive harm if released.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 14

Comment: Through the CBI determinations under Subpart C, EPA is placing companies without CEMS at a disadvantage by not protecting information provided as inputs to emission equations. For Subpart C, the quantity of each fuel combusted, the high heating value (HHV), carbon content and molecular weight of each fuel are reported where emission calculation methodology Tier 2 or 3 is used. This information, along with the identification and maximum rate heat capacity of each combustion unit, provides competitors valuable trade information by knowing utilization rates of combustion units. Knowing the capacity utilization of energy, competitors could then calculate the production output of production units and of that facility. Competitors could use this information along with the maximum rated and/or annual throughput required to be reported under some subparts to evaluate whether a facility has existing capacity available to increase production and market share, or is already at their maximum production and would need to invest capital to expand capacity in order to produce more. Having such information could give competitors insights to make competitive decisions on expanding their own production rates or altering their pricing strategies to the detriment of the reporting company. Further, composition fuel and is considered propriety business information.

Disclosure of fuel use, particularly fuel use by unit as required under §98.36(e)(2)(i), would reveal a facility's process operational capacity, limits, bottlenecks, and options to reconfigure in response to market change. This information can be used by competitors to the disadvantage of the reporting company. The quantity of fuel gas combusted in each combustion unit or group of combustion units is not information that is routinely reported and is not currently available to the public. For example, under the California reporting rule, fuel quantity for each combustion device is recognized as CBI. API members are claiming fuel quantity as CBI in their California emissions report.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

29.3 General comments that inputs are not sensitive and evidence that inputs are not protected

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Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 4

Comment: In order to provide the strongest possible assurance that data reported to the MassDEP's GHG reporting program is accurate, MassDEP requires reporting of data elements that are inputs to emissions equations, and also requires third party verification once every three years. In order to maximize the usefulness of this information to policymakers and the public,

and to maximize the incentive for facilities to voluntarily consider reduction strategies, MassDEP also provides public access to all reported information electronically through the MA GHG Registry. Our view is that EPA should place a similar priority on accuracy and transparency. To date, we have not heard objections from the regulated community to publication of data elements that are inputs to emissions equations, suggesting to us that some or all of the data under consideration for protection can and should be reported, used by EPA to support verification, and released transparently to the general public. [Footnote: Specifically, the registry includes information submitted in accordance with 310 CMR 7.71(5)(c)5., which states: "In cases where an emissions factor is used to calculate emissions from material throughput *(e.g.,* fuel consumption), the quantity of the material, and any characteristics of the material that are needed to determine the correct emission factor, shall be reported."] This provides the best and most accurate data to the public so it can be informed about the location and amounts of GHG emissions occurring in their area.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

29.4 General comments that inputs are not sensitive and evidence that release of inputs would not cause competitive harm

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 17A

Comment: Even where data is not publicly available, Dr. Sahu emphasizes that the deferral does not make economic sense because "it is naïve to believe that direct competitors do not have knowledge of basic business aspects of their competitors in the following areas":

- production processes (from presentations at technical meetings, trade association meetings, memberships in standards organizations, industry publications, suppliers, vendors, data provided to other governmental agencies such as OSHA, SEC, etc.);
- raw materials used (from suppliers and transporters);
- capital projects planned (from vendors and suppliers);
- energy sources and usage (from utility company negotiations and records);
- innovative practices (from customers and suppliers, technology licensors, patent filings, marketplace shifts, etc.); and
- business risks (from SEC filings or other filings for public companies).

He notes that "[t]he general mobility of the workforce (particularly the technically trained workforce in the US and abroad), especially within each industry, contributes to dissemination of business information" and "[e]xcept for a few industries, non-disclosure agreements are rare," as

are legal actions to enforce such agreements. "That is because, as mature industries, almost all aspects of manufacturing and production are well known within each industry."

Dr. Sahu adds that the absence of competitive harm is particularly clear for the steel and cement sectors, because they "by their nature tend to have captive geographic markets." He explains that players in these industries can "rarely penetrate a geographically distant market since it is very difficult to overcome the transportation advantages afforded to a more local supplier." As a result, operators in these industries may seek to emulate each other, but are rarely in direct competition in ways that would raise competitiveness concerns.

Dr. Sahu therefore concludes:

Thus, deferring the data elements at question does nothing to increase business risk.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

29.5 General comments that inputs are not publicly available

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[53,54]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 30

Comment: EPA could not otherwise obtain this [input] data without the consent of the relevant businesses. 40 C.F.R. § 2.208(c). The cost or difficulty associated with obtaining information is an important consideration in assessing whether it is "reasonably obtainable." *Worthington Compressors, Inc. v. Costle*, 662 F.2d 45, 52 (D.C. Cir. 1981). These data are not reasonably obtainable. For example, the quantity of fuel gas combusted in each combustion unit or group of combustion units is not information that is routinely reported and is not currently available to the public. Under the California reporting rule, for instance, fuel quantity for each combustion device is recognized as CBI. API members are claiming fuel quantity as CBI in their California emissions report.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.

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[53] This comment is incorporated by reference from EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1.
[54] Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 14

Comment: As far as DuPont can surmise, none of the inputs to emission equations on which we have commented are reliably available publicly.

We are aware of firms that gather information in many ways to publish competitive intelligence reports that purport to divulge such information. One example is the report on the fluorocarbon industry published by SRI Consulting.

We have, in fact, purchased such reports. None of the information in them of the sensitive nature described in the foregoing comments, has been provided by DuPont and we have identified substantive errors in key information that will provide some level of protection from competitive intelligence. In some examples, the aforementioned SRIC report on fluorocarbons and its capacity estimates may be close to actual DuPont capacity. However, this is only their estimate because our policy is not to divulge DuPont production capacity. An EPA release of specific DuPont capacity, which is clearly disclosed to the EPA by DuPont, would remove any doubt and protection.

DuPont has always claimed as CBI information of the type required to be reported in the MRR. For example, when we report air emissions inventory data or Title V air permit application data to state agencies, typically two versions will be submitted, including a redacted version that may be disclosed publicly and a version marked as CBI. Attachment A provides a simulated example of an excerpt from a Title V permit application, showing which information would match with specific reporting requirements in the GHG MRR. In the example, numerical values have been changed and compound names have been hidden. Non-emissions data would be redacted in the version that may be disclosed publicly and the numerical values and compound names would be provided in the CBI version submitted to the agency.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 21

Comment: To the best of our knowledge, none of the inputs to emission equations on which we have commented are reliably available publicly. We noted that some firms prepare reports on the industry based on information gathered from a variety of sources, but that significant data in those reports is inaccurate. EPA disclosure of our data would remove such uncertainty for our foreign and domestic competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

29.6 General comments that inputs are publicly available

Commenter Name: Paul A. Griffin, Professor of Management
Commenter Affiliation: University of California, Davis
Document Control Number: EPA-HQ-OAR-2010-0929-0010.1
Comment Excerpt Number: 2

Comment: Might certain EPA-required data be already available and, as such, already reflected in stock prices? My study addresses this question in the following way. I first collect data on company greenhouse gas emissions from the Carbon Disclosure Project (CDP). CDP is a U.K. organization representing mostly institutional investors that works with large companies worldwide to measure and manage their emissions and climate change strategies. Importantly, these data are presently thought to be the highest quality information available, and many U.S. and Canadian companies have been reporting to the CDP for 4-5 years. Thus, one would expect that capital markets price these data, and this is what I find in my study. But my study also generates *predictions* of greenhouse gas emissions for companies that do not disclose to the CDP. I base these predictions on certain industry and financial statement factors. Surprisingly, my study obtains results similar to the results for companies that disclose their emissions. This suggests the following: that for companies whose shares trade in efficient capital markets, stock prices reflect both actual and estimated greenhouse gas emissions, where investors and analysts estimate greenhouse gas emission from other publicly available data. The release of actual greenhouse gas emission data, such as through an EPA reporting mechanism, for those companies whose estimated greenhouse gas emissions are already in stock prices should not, therefore, prompt a significant response by investors. Little new information is supplied to the market at that time. On the other hand, my work indicates a stronger market response for companies that are not tracked closely by analysts regarding climate change factors and have lower carbon intensity (greenhouse gas emissions in relation to sales revenue). Climate change news about these companies appears to be more newsworthy at the time of disclosure.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: William Space, Environmental Analyst
Commenter Affiliation: Massachusetts Department of Environmental Protection (MassDEP)
Document Control Number: EPA-HQ-OAR-2010-0929-0030.1
Comment Excerpt Number: 10

Comment: In response to this Call for Information, we are providing some examples of data that fall into the first of these categories: data that is already available to the public through other sources. The purpose of providing this information is to illustrate our general position that EPA's proposal to defer reporting of a long list of data elements is overly broad, and to provide some assistance to EPA in identifying examples of data elements that should be reported and released.

This list is not intended to be comprehensive; in fact, we generally support the release of much or all of the information under consideration because we expect that it could prove useful to efforts to reduce emissions. To the extent that there are data elements that should not be made public, EPA should use the Call for Information as an opportunity to work with stakeholders to identify specific data elements for which confidentiality concerns may be legitimate, and then accommodate those concerns only if they do not compromise the urgent need to develop a comprehensive national registry of verified greenhouse gas emissions data to support efforts to address climate change.

MassDEP has identified the following cases in which EPA appears to have proposed to defer reporting of data elements that are already available to the public from other sources. [Footnote: In the Call for Information, EPA asked "Which, if any, data that are inputs to emission equations are already publicly available, discernable from other publicly available data, or otherwise not sensitive for any reporter? In your response, please identify the manner and location in which each specific data element you identify is available or not sensitive, including a citation."]

Given EPA's stated objective of protecting confidential information, deferral of reporting of these data elements appears to be particularly unjustified.

- MassDEP recently published fuel quantity, fuel type, heat content, emission factor and oxidation factor information for individual processes at reporting facilities in the MA GHG Registry for CO_2emissions released in 2009. [Footnote: Specifically, the registry includes information submitted in accordance with 310 CMR 7.71(5)(c)5., which states: "In cases where an emissions factor is used to calculate emissions from material throughput *(e.g.,* fuel consumption), the quantity of the material, and any characteristics of the material that are needed to determine the correct emission factor, shall be reported."] Go to https://www.crisreport.org/web/guest/analysis-and-reportsto see reported information.
- The United States Department of Energy's Energy Information Administration requires submittal of fuel quantity and heat input by fuel type by certain facilities, and publishes the data on its website..
- EPA's Clean Air Markets Division collects and publishes a variety of a data points from large power plants including hourly natural gas gross caloric value, quantity of natural gas and oil combusted, etc. Go to http://camddataandmaps.epa.gov/gdm/index.cfm?fuseaction=emissions.wizard to see reported information.
- To support reporting of criteria pollutant emissions, states already collect fuel use data from facilities and pass that information on to EPA. Go to http://www.epa.gov/air/emissions/where.htmto see some of this information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: James Brooks, Director, Bureau of Air Quality
Commenter Affiliation: Maine Department of Environmental Protection (DEP)
Document Control Number: EPA-HQ-OAR-2010-0964-0021.1
Comment Excerpt Number: 3

Comment: The Maine DEP has reported these same emission data elements to EPA for two decades. Other states subject to the federal emission reporting rules or federal implementation of their requirements in the absence of a SIP-approved program have reported these same elements, too. Under Title 5, Section 552 of the United States Code, federal agencies are required to make any non-exempted records available to the public upon request. Therefore, EPA currently has decades of activity and throughput data that is publicly available.

Finally, many facilities included in the GHG MRR are also subject to federal Department of Energy reporting requirements. Energy generating facilities annually submit Form EIA-923 "Power Plant Operations Report," containing information on fuel type, amount consumed, heat input, and electricity generated. Monthly data for 2001 through 2010 is available to the public online at www.eia.doe.gov/cneaf/electricity/page/eia906_920.html.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: James Brooks, Director, Bureau of Air Quality
Commenter Affiliation: Maine Department of Environmental Protection (DEP)
Document Control Number: EPA-HQ-OAR-2010-0964-0021.1
Comment Excerpt Number: 4

Comment: The Maine DEP has received emission data, including process and fuel throughputs, as part of the annual point source reporting program since 1985. The attached table lists all throughputs reported to the Maine DEP in 2008. Maine's Freedom of Access Law (1 M.R.S.A. §408) gives the public rights to inspect and copy any public record, which is defined to include all written and printed materials and any electronic data compilation in the possession of an agency or public official of the State. Maine's law provides for the consideration of some records for exemption if public disclosure puts a business at a competitive disadvantage and that business's interest substantially outweighs the public interest in the disclosure of records. (1 M.R.S.A. §432 (2)(E)) Throughout the lifetime of Maine's emission reporting program, no facility has asserted that providing process or fuel throughput information to the state such that it would become part of the public record would be harmful to its business.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Marjorie Kaplan, Dr. P.H., Manager
Commenter Affiliation: State of New Jersey, Department of Environmental Protection, Office of Climate and Energy

Document Control Number: EPA-HQ-OAR-2010-0964-0036.1
Comment Excerpt Number: 1

Comment: EPA has requested specific information on inputs to emission equations that are already publicly available. Many of these data elements (e.g. quantity of fuel combusted, heat input, raw material processed, etc.) are currently publicly available in the New Jersey Emission. Statement program which is used to provide data to the federal National Emission Inventory, particularly for Subpart C General Stationary Sources. Information reported by facilities in Emission Statements pursuant to N.J.A.C. 7:27-21, include; "activity rate/throughput during a specific time period" and "the types and amounts of fuel burned, process inputs consumed." (See Attachment for details).

In addition to the Emission Statement, other regulatory programs routinely require input data to be reported. For example the New Jersey Clean Air Interstate Rule at NJAC 7:27-30.6, which implements the federal requirements for sources of NOx, requires companies to report for each type of fuel burned, the heat input, expressed in MMBtu. Similarly, the NO budget rule 7:27-31.16 requires facilities to report quantities for each type of fuel burned, the heat input, expressed in MMBtu, and electric output expressed as MW hours. (See Attachment for details)

It appears likely that the fuel use and other information reported by facilities to NJDEP is the same information EPA is considering to treat as confidential in the federal greenhouse gas monitoring and reporting program. Other states with non-attainment areas have similar programs to New Jersey's Emission Statement, such as New York's Stationary Source Emissions Inventory. Since NJDEP treats fuel use and other information as public information it would not meet the federal criteria for use in confidentiality determinations under 40 CFR 2.208(c), which states: "The information is not, and has not been, reasonably obtainable without the business's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding)." This information is necessary to determine the accuracy of reported emissions and to normalize emissions for comparison purposes. Therefore, it is not appropriate for EPA to consider this information confidential.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Arthur N. Marin, Executive Director
Commenter Affiliation: Northeast States for Coordinated Air Use Management (NESCAUM)
Document Control Number: EPA-HQ-OAR-2010-0929-0017.1
Comment Excerpt Number: 2

Comment: EPA also proposes to defer the reporting date for inputs to emission equations for up to three years while EPA issues final confidentiality determinations. The result would be that reporting of these data elements for years 2010-2012 may not occur until 2014. This delay would prevent the proper verification of emissions reports by EPA in a timely manner. The verified data, as well as the inputs to emissions equations, were expected to be released by summer 2011,

and some NESCAUM states anticipated using these data in state GHG emissions inventories, for tracking GHG reduction targets, for identifying major sources of GHGs, and for use in general climate change program planning.

Response: Although EPA regrets any inconvenience to States that may result from this final action, we note that the deferred reporting of inputs to emission equations under EPA's Greenhouse Gas Reporting Program does not affect the ability of States to require facilities to report these data elements. Please also see the responses to comments EPA-HQ-OAR-2010-929-0021.1, excerpt 1 and EPA-HQ-OAR-2010-0929-0029.1, excerpt 12.

30.0 SUGGESTED CALCULATION/VERIFICATION METHODOLOGIES

Commenter Name: Brian R. Coleman, Chairman
Commenter Affiliation: Titanium Dioxide Stewardship Council (TDSC)
Document Control Number: EPA-HQ-OAR-2010-0929-0011.1
Comment Excerpt Number: 6

Comment: EPA should not depart from its successful reporting protocols in other programs to satisfy the reporting requirements under this rule. Discharge Monitoring Reports under the National Pollutant Discharge Elimination System, stack testing under the Clean Air Act, and reporting for the Toxics Release Inventory are a few examples of EPA programs that require reporting without submission of extensive back-up information. Under these protocols, the regulated community is required to keep records supporting the report inputs. Limited operational data are reported to EPA and operational data are not posted to public forums. Because industry is accustomed to these methodologies and additional training would be minimal, the burden to industry could be lower under this scenario than what is currently contemplated in the rule. Each of these example protocols has proven to be workable; each provides reliable data for relevant agencies and the public; and each includes safeguards to ensure data integrity. In contrast, the proposed approach under the GHG rule would require substantial quantities of detailed data and supporting documentation, which will cost both industry and EPA significant resources with no additional benefits. Industry will have added burdens to generate the additional data in a timely manner, review for CBI concerns, develop a sanitized version, conduct final reviews, and submit to EPA. EPA would be obligated to process the enormous amount of information that would be submitted. In addition, it would have to appropriately handle, store, and maintain the majority of the information as CBI. It is well-known that protection of CBI within the EPA has failed in the past and the potential for future failures is of great concern to those entitles having to report. This is particularly concerning because the submission of this information is not required in order for EPA to achieve the goals of GHG reductions.

Response: We thank the commenter for their input. EPA defers assessing this comment to action on its process for evaluating inputs to equations, as described in the docket memorandum, "Process for Evaluating and Potentially Amending Part 98 Inputs to Emission Equations."

Commenter Name: Stuart A. Clark, Air Quality Program Manager
Commenter Affiliation: Washington State Department of Ecology
Document Control Number: EPA-HQ-OAR-2010-0929-0015.1
Comment Excerpt Number: 3

Comment: Ecology understands the importance of protecting sensitive data. Washington's public disclosure laws do not allow us to adopt EPA's previous CBI rule makings from July and August 2010. Instead, Washington's rule includes a method that reporters can request data elements remain confidential on a case by case basis. This is the more traditional approach based on existing programs. It allows for a great amount of flexibility and reduces the need for rule makings. Ecology received several comments from reporters that they preferred this method to the process established in EPA's GHG reporting program.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Curtis Ravenel, Director of Sustainability[55]
Commenter Affiliation: Bloomberg LP
Document Control Number: EPA-HQ-OAR-2010-0929-0020.1
Comment Excerpt Number: 1

Comment: We believe it is impossible to strike the right balance for all situations at a high level of generality. In our experience, the right balance between the information needed for verification and evaluation on one hand, and protecting legitimate trade secrets and other confidential business information on the other hand, cannot be made on a broad, abstract "across the board" basis as EPA is attempting to do but rather requires greater attention to context and the specifics of the particular industry or facility involved. We understand that EPA may lack the resources to make these case-by-case decisions. Bloomberg believes that the solution to this Hobson's choice is third-party verification of GHG emissions data. By giving GHG reporters the choice of third-party verification, EPA would get the incentives right to encourage industry to report accurately, but at the same time protective truly sensitive competitive information.

Therefore, Bloomberg reiterates the suggestion made in its previous comments to the docket in September 2010 that EPA should that EPA require the disclosure of specific input data, except if has been disclosed to a third-party verifier *in camera*.

Bloomberg strongly supports third-party verification of GHG data. We have found in our experience that third-party verified data tends to be much more accurate and credible. EPA

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[55] Comment also included in EPA-HQ-OAR-2010-0964-0022.1.

should "nudge" [footnote: Richard H. Thaler and Cass R. Sunstein, Nudge: Improving decisions about health, wealth, and happiness (Yale Press, 2008)] industry in the direction of greater use of third-party verifiers by providing that input data that has been disclosed to a qualified third-party verifier *in camera* does not need to be disclosed publicly, where it could cause competitive harm.

Courts commonly handle sensitive but important information by inspecting it *in camera*. Third-party verifiers could perform the same function with regard to GHG data. If a third-party verifier inspects input data and verifies that GHG emissions are correct, they should co-sign the data report to EPA (as tax preparers do) so that they become equally liable for any fraudulent reporting.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 10

Comment: EPA has the authority to conduct compliance audits of lime plants if EPA believes their reported GHG emissions are inaccurate or otherwise unreliable. In addition, lime plant managers will have to certify that the GHG emission data they report is accurate under penalty of law. Given the potential legal consequences, a lime company would not knowingly report inaccurate GHG emission data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: D. Mark Durcan, President and Chief Operating Officer
Commenter Affiliation: Micron Technology, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0026.1
Comment Excerpt Number: 6

Comment: We have not identified a calculation or measurement approach that would not involve sensitive confidential data elements. SIA and its members have proposed several calculation and measurement approaches in comments to EPA. […]

Moreover, we do not understand why IPCC Tier 2b factors are insufficient given the small amount of GHG emitted from semiconductor manufacturing facilities. In October 2009, Micron told EPA it would consider participating in a study to update the IPCC Tier 2 emission factors if necessary.

Based on information already provided annually to EPA by the semiconductor industry, EPA reported that the 2009 "emissions estimate for total U.S. PFC emissions from semiconductor manufacturing were...between 4.8 and 5.9 Tg CO2 Eq. at a 95 percent confidence level," [Draft inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2009, 4-70, 71 February 2011] which is less than 0.1% of total U.S. greenhouse gas emissions on a CO2 Eq. basis [Draft inventory of U.S. Greenhouse Gas Emissions and Sinks:1990-2009, Table ES-2: Recent Trends in U.S. Greenhouse Gas Emissions and Sinks. February 2011]. Again, by any reasonable measure, this is a minute amount of GHG to be regulating at the level of detail beyond which the industry already provides to EPA.

In addition, as noted in comments that Micron filed in Docket ID No. EPA-HQ-OAR-2008-0508, June 9, 2009, EPA could cost-effectively use Tier 2b information to create a government inventory list of the most significant emitters. According to Cass Sunstein, Administrator, Office of Information and Regulatory Affairs, OMB, companies on the list would likely take additional steps to reduce emissions [footnote: Richard H. Thaler and Cass R. Sunstein, Nudge, Yale University Press, 2008, Penguin Books, 2009, at 193]. EPA's focus on decimal-level precision while putting sensitive valuable confidential information at risk before trying more cost-effective options is irrational and unreasonable.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: D. Mark Durcan, President and Chief Operating Officer
Commenter Affiliation: Micron Technology, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0026.1
Comment Excerpt Number: 7

Comment: Micron's information can be inspected by EPA, EPA contractors, and state regulators at Micron's facilities as is done under the other air quality programs today. Micron has a longstanding policy of cooperating with government inspectors, including hosting EPA representatives from Washington, D.C. at its 300mm fabrication facility in Manassas, Virginia in connection with developing the GHG reporting rule. Micron can make pertinent records available to the inspectors at Micron's facilities under a continuing claim of confidentiality. Supporting data, calculations, and other information can be required to be maintained and made available to EPA for inspection and verification at covered facilities.

In addition, as EPA noted in the original proposal, "[f]acilities that fail to report GHG emissions according to the requirements of the...rule could potentially be subject to enforcement action by EPA." 74 Fed. Reg. 16535. The threat of civil and criminal sanctions under the Section 113 of the Clean Air Act provides sufficient motivation to achieve and maintain compliance.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[56]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2008-0508-0498.1
Comment Excerpt Number: 1

Comment: SIA's Proposed Alternative Approach:

The EPA requested a description of how companies could better quantify gas usage by process area compared to what is currently done through Tier 2a methodology. The SIA offers this proposed alternative for usage estimation combining measured gas-specific cylinder residual ("heel") factors with engineering estimates of gas usage by etch and chamber cleans. This improved accuracy of gas consumption tracking should be sufficient and further QA/QC of gas usage data should not be required with this alternative. This improved accuracy will also serve to meet the goals of the Proposed Rule.

Gas consumption can be tracked using usage records for each gas. A heel factor must be applied to each cylinder or bulk container of each gas to account for the residual amount of gas remaining in the container when changed. A gas-specific heel factor will be determined initially for each gas container type using the following method. The weight of the gas in the incoming cylinder is very consistent for each gas container type. A cylinder change-out is triggered by either the weight of the gas measured by scale or the measured pressure, depending on the gas. The gas remaining in the cylinder is determined either by the measured weight or the calculated weight based on the measured pressure using the Ideal Gas Law (PV=ZnRT) with the appropriate compressibility factor (Z) for the gas. The total usage is the difference in the weight of the cylinder when installed and when changed. Using this known residual weight of the container, a gas specific heel factor for each container type used (cylinder or bulk) is determined (residual amount percentage of the total amount). This gas-specific heel factor is then applied to each of the cylinders or bulk containers used to determine the net amount of each gas used by the facility. Table 1 illustrates how this gas-specific heel factor can be calculated. This methodology offers significant accuracy improvement in gas consumption estimates compared to use of a default heel factor by accounting for what can be substantial relative differences in change-out trigger points from gas to gas and from one facility to another, due to differences in tool and process sensitivity. Use of facility determined gas specific heel factors is sufficiently reliable relative to direct measurement of all gas usage because container change-out based on established trigger points is consistently executed in semiconductor fabs as a result of simultaneous requirements to protect processes from excursions and to make maximum cost-effective use of raw materials. Furthermore, costly installation of gas distribution and measurement infrastructure is not required.

The heel is the amount of gas remaining in the cylinder when the cylinder is changed. Where pressure triggers the cylinder change, the weight can still be determined as can the gas-specific heel factor (pressure corresponds directly to weight).

[56] This comment is incorporated by reference in EPA-HQ-OAR-0964-0026.

Once the total amount of each gas used by the facility is determined, the amount of each gas used in each process type (etch and chamber cleans) can be reasonably approximated using engineering estimates where gas distribution systems feed multiple tools and processes. First all of the tools that use a particular gas are determined and sorted by process type (etch and chamber cleans). The total usage of a particular gas is then apportioned between etch and chamber clean processes by using knowledge of factors such as process recipes, typical flow rates and times, groups of similar tools running similar processes, and the average utilization or throughput of individual tools or groups of similar tools.

This proposed alternative provides a reliable estimate of GHG emissions for any facility currently using Tier 2a or Tier 2b methods using the default heel factor. Gas-specific heel factors are likely more accurate than the 2006 IPCC default heel factor of 10%. Not only do the heel factors vary for each gas, they can vary for each facility depending on the gas distribution configuration. Using engineering methods to estimate gas usage by CVD and Etch where gas usage is not tracked by process type improves the precision of the emissions estimates over emissions calculated using only Tier 2a.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[57]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2008-0508-0498.1
Comment Excerpt Number: 2

Comment: SIA's Proposed Alternative Approach

The EPA requested that the semiconductor industry offer a proposed alternative methodology that would meet the objectives. The SIA offers this proposed alternative applying emissions factors that, in effect, do not differentiate facilities by their rated capacity (i.e., "Large" or "Small" facility). Note that point of use abatement and DRE factor determination is addressed in Section 3 of the SIA Comments.

Facilities will use process-specific Tier 3 factors for their gas utilization and by-product formation provided that:

- they already have physical possession of those factors either from tool suppliers or through their own measurement methodologies consistent with the ISMI 2006 Guideline; and
- they conclude -- based on their professional judgment -- that those factors are representative of their particular process.

For facilities that do not have process-specific Tier 3 factors in their physical possession, the 2006 IPCC Tier 2b default emission factors will be an approved alternative for process platforms

[57] This comment is incorporated by reference in EPA-HQ-OAR-0964-0026.

and toolsets for 300mm wafers or smaller. The amount of each gas used by each process will be determined using the proposed alternative method for Fluorinated GHG Usage Determination. According to this method, engineering estimates will be used to approximate the amount of each gas used by tools/processes that have process-specific Tier 3 factors to calculate the emissions from those tools/processes. From these engineering estimates, the amount of each gas used in CVD and Etch by tools/processes that do not have company-specific Tier 3 factors will then be used to calculate the remainder of the emissions using IPCC Tier 2b default emission factors.

The 2006 IPCC Tier 2b methodology is a globally accepted method for estimating GHG emissions for a facility. The Tier 2b factors were developed using 190 distinct measured emission factors for CVD chamber cleaning and etch processes and are considered to be sufficiently accurate for developing an inventory of GHG emissions. [Draft Report - Emission Factors for Semiconductor Manufacturing: Sources, Methods and Results, February 2006] Given that a typical facility has many tools using these gases in hundreds of different process recipes, a facility is, in effect, an inventory.

While individual Tier 2b emission factors can be subject to the relative errors estimated by IPCC, application of numerous emission factors across hundreds of process recipes results in an overall facility emissions inventory with substantially lower relative error. Error in the total inventory tends somewhat toward overestimation of emissions due to the asymmetric error distribution of some of the component emission factors. Although Tier 3 emission factors are more specific in their application than Tier 2b factors, they are subject to the same type of relative error. Due to the complexity of semiconductor manufacturing, Tier 3 factors must necessarily represent a range of process recipes for a particular tool and process platform, rather than one unique set of process conditions.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[58]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2008-0508-0498.1
Comment Excerpt Number: 3

Comment: SIA's Proposed Alternative Approach

The SIA offers this proposed alternative for DRE measurement of abatement devices that will provide sufficiently accurate and representative DRE factors for companies to be able to apply the factors to their emissions (where applicable) to reflect emissions reductions due to these devices. This alternative also meets the objectives of the Proposed Rule (as outlined in Section 2 of SIA Comments) when combined with the SIA proposed alternatives for gas usage determination in Section 1 and the alternative for applying emissions factors in Section 2.

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[58] This comment is incorporated by reference inEPA-HQ-OAR-0964-0026.

Where representative abatement systems have not been tested by an industry standard protocol, facilities that have abatement systems that are specifically designed to abate F-GHGs will apply the 2006 IPCC default DRE factors. "Third party" testing will not be required for owners and operators or equipment suppliers who follow industry standard test protocols for representative system testing to determine DRE factors. For new models of abatement systems, testing will be conducted initially either by the supplier or by the owner/operator when the system is acquired or put into service.

Individual unit testing will not be required where DRE values for a given GHG have been established for specified process conditions for a particular model of abatement equipment where the process conditions are consistent with the conditions for which the DRE values were established. The established DRE values for a particular model will be used for all systems of that model.

To ensure that the established DRE for a given model of abatement equipment does not degrade, all abatement equipment must be maintained in good working order and operated properly. Facilities using GHG abatement equipment shall operate the equipment within the manufacturer's specified limits, or within alternate limits that have been supported by the testing protocols as described above. No periodic testing is required.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 11

Comment: At a minimum, allowing the aggregation of fuel and feedstock consumption data would help obscure the specific information regarding actual efficiency and production. Such aggregation would not compromise the calculation of the CO_2 emissions per equations P-1, P-2, and P-3 under §98.163(b). This approach would not compromise data accuracy at all, nor would require any increased cost.

Further, allow the consumption to be reported on a "carbon feed" basis – not requiring the disaggregation of fuel/feedstock by type (e.g. tonnes of fuel/feedstock carbon input to the process). This implies consolidation of the terms "$Fdstk_n * CC_n$" in equations P-1, P-2, and P-3 (§98.163(b)) into a single term "FFdstkCarbon" (in units of "kg carbon"). Such a method will still rely on calculation algorithms based on fuel/feedstock consumption and characterization (carbon content and molecular weight) that must be protected as CBI. Again, this approach would not compromise data accuracy at all, nor would require any increased cost.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 13

Comment: EPA should allow for self-certification of the reported results, with the same legal liabilities associated with any factual misrepresentations borne by the facility's responsible official submitting the data. This approach is deemed sufficient for other EPA and state reporting of other criteria pollutant data and should be considered comparably acceptable for GHG emission reporting, as well. Underlying data would be retained solely at the facility and be made available, upon request, for review by EPA or its designated contractor, with all the appropriate confidentiality protections employed.

As a fall-back approach, EPA should allow subject sources to chose third-party verification and thereby limit the extent of back-up, calculation supporting data that must be reported - in this way allowing sources to protect process and operating data deemed CBI by them. This would actually improve the confidence and integrity of the reported emissions values, since a more detailed, independent review of the underlying data will be performed. Unfortunately, this approach is a costly alternative for protecting CBI that could otherwise be protected by judicious EPA rules.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 23

Comment: Rule §98.123(b)(3)(i): The process activity, such as process feed rate or process production rate, must be measured for the process-vent-specific emission factor method. The activity used to estimate this is CBI since the emissions and emission factor will use the activity factor to calculate the emission rate and associated emissions, and the activity will directly or indirectly related to production throughputs for each individual process and process vent. This information will provide a very comprehensive map of a facility's process and production capabilities, and it could be used by our competitors to better understand our production technologies, capacities and pricing structure, all of which is extremely sensitive business information. In lieu of reporting the process activity, facilities should be provided with the option to report a process activity factor that indexes or otherwise parametrically represents process feed rates or production rates in terms without disclosing the actual sensitive data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 32

Comment: The intention of the MRR rule is to establish a national GHG emissions data base and not to assess compliance with individual permit or process limits or to access local air quality impacts. A very simple mechanism for addressing these concerns would be to simply report these chemical emissions as an aggregation either in terms of total CO_2e for an entire site. Aggregation is a method that would protect detailed process information and provide a public record of the metric for which this rule is proposed. Some form of aggregation typically is the method used by air agencies to protect confidential business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 33

Comment: CEMS have been effectively used to actively monitor certain air pollutant streams, in particular criteria pollutants and selected HAPs. However, CEMS would not be economical or practical for effective measurement of all constituents of concern, and CEMS may not be capable of measuring all constituents in service.

The other unknown is if a CEMS can be designed and operated in a highly corrosive environmental that is often found at facilities that handle hydrogen fluoride, fluorine and fluorine-derivatives. A key obstacle for CEMS measurement of fluorinated-GHGs is the substantial cost and technical challenge necessary to develop, prototype and manufacture a CEMS capable of accurately and consistently measuring incredibly low concentrations of F-GHGs in a process vent or flue stack streams at widely-varying velocities and very low flow rates. Air Products estimates it would take 3 – 5 years to complete the required research, engineering and production for such a NF3 CEMS. The cost for R&D is unknown at this point, but we estimate the cost to retrofit our NF3 production processes with F-GHG CEMS would exceed $4 million in capital investment (purchase, installation and commissioning, and spares) and more than $1 million per year in operation, maintenance and calibration costs. Air Products' NF3 production facility has more than two dozen individual NF3 process units, each with multiple process vents. These costs do not include the addition of mass or volumetric flowmeters that would also be required.

In addition to the above, these measurement methods would be substantively compromised in batch processes where mass flow and concentration measurements would need to be carefully correlated. The technical limitation for this type of monitoring method is well understood in the industry.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 34

Comment: [In the July 7, 2010 CBI proposal,] EPA suggests aggregated reporting of production data and notes that data in aggregated format could be disclosed to maintain the confidentiality of the data. Air Products disagrees since in some product lines, there are a limited number of companies that manufacture the product, while for other product lines there are a limited number of technologies known, and in use, to manufacture the product. Reporting this data in aggregated format would unnecessarily present the opportunity for affected companies to discern sensitive data about their competitors.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 35

Comment: In previous communications, USEPA indicated that the purpose of their broad requests for detailed process information was intended to provide a basis for future policy and rule development, and not to "verify reported GHG emissions;" however, much of data required to be reported by this Subpart will not support verification of emission estimates. For example, under 98.126 (c), the activity measurement quantity ((c)(1)) used to convert the process vent specific emission factor ((c)(2)) into the mass of each fluorinated-GHG emitted (c)(3)). Based on the language in the request for comments, the purpose of reporting both the production quantity and the emission factor is presumed to allow EPA to verify that the mass reported is (c)(3) is correct. This is a simple multiplication, and there is little value in reporting this information. It is highly unlikely that errors or omissions will occur at this step in the emission calculation process. True "verification" of the emission factor would best be served by evaluating the detailed engineering calculations and/or emissions testing results that serve as the basis for the emission factor.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 36

Comment: Air Products would offer that the most comprehensive and comparable emissions database to the Mandatory Reporting Rule is EPA's own TRI. TRI has been successfully in application for nearly 25 years, and has been revised as warranted. Facilities may use direct measurement, pollutant monitoring data, emissions factors, parametric data monitoring, engineering estimates and mass balance calculations in order to determine reported emissions. A facility is required to report only the method that it utilized to determine the majority of its reported emissions, and the measured/calculated emissions data for each chemical. Sound record-keeping practices are essential for accurate and complete TRI reporting. It is in the facility's best interest, as well as EPA's, to maintain records properly, and the facility must maintain copies of each report filed for at least three years from the date of submission. A facility also maintains supporting documentation, calculations, worksheets and other forms they used to gather information for these reports. In the event of a question with any data element on a facility's submitted Form R or Form A report, EPA may request documentation from the facility that supports or further substantiates the information in question. EPA may also conduct data quality reviews of Form R or Form A submissions. An essential component of this TRI process involves reviewing a facility's records for accuracy and completeness. This same reporting philosophy and methodology is applicable and appropriate for GHG reporting and CBI determinations.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 14

Comment: Some industry commenters [Footnote: *See, e.g.*¸ Comments of NEDA/CAP (Sept. 7, 2010); Comments of PPG Industries (Sept. 7, 2010)]. urge that because California's greenhouse gas reporting system and EPA's own Toxic Releases Inventory ("TRI") do not make emission equation inputs public, EPA need not do so here. These criticisms are not compelling because they ignore the very different structures of those systems. Indeed, if anything, EPA's proposed deferral is more likely to damage the California system than to emulate it.

The TRI is a very poor model for the reporting rule. Most notably, the Emergency Planning and Community Right-to-Know Act ("EPCRA"), which created the TRI, does not contain an explicit statutory command to make all toxics data publicly available regardless of its putative trade secret status, unlike the Clean Air Act's "emission data" provision. Further, EPCRA allows for somewhat more coarse data quality than does the greenhouse gas reporting system. The statute requires companies to provide an "estimate" of the "maximum amount (in ranges)" of the toxic

chemicals at their facilities, not the precise figures necessary for effective greenhouse gas control. 42 U.S.C. § 11023(g)(1)(C)(ii). Similarly, the statute authorizes operators to use "readily available data" or "reasonable estimates" to assemble these figures, and explicitly provides that "[n]othing in this section requires the monitoring or measurement [of toxics]… beyond that . . . required under any other provisions of law or regulation." 42 U.S.C. § 11023(g)(2); *see also* 40 C.F.R. § 372.85 (again requiring "estimate[s]" of toxic releases).

The TRI program, in short, produces relatively general information, based upon existing measurements, without the precision or transparency mandates of the reporting rule. As well, though chemical releases may be difficult to track, the TRI system lacks the notably complex regulatory infrastructure of the reporting rule, with its multiple tiers of reporting and detailed regulatory directives designed to ensure proper data collection. The reporting rule is more ambitious than the TRI and, potentially, more prone to reporter errors. To operate the reporting system, EPA must, therefore, take commensurately greater steps to ensure data quality, including collecting and analyzing emission equation inputs (or otherwise ensuring that they are properly verified). Experiences with poor data quality and errors in the TRI system are abundant, including Geographic Information System coordinates showing a facility located in a lake, emission rates that are identical from year to year where varying emissions are expected based on facility operation, emissions that are off by an order of magnitude, and zero emission rates where emissions are expected. These problems demonstrate that a more robust system is necessary from a practical perspective as well.

The distinctions between EPA's approach and CARB's program likewise do not argue against disclosure. Although commenters are correct that CARB does not provide emission equation inputs to the public, it is not required by statute to do so. More importantly, CARB can properly treat these inputs differently because CARB does not verify emissions reports itself, instead relying upon third-party verifiers. [see comment letter Exs 15-17 for general reference]. With this extensive third-party verification system in place, CARB is less dependent upon its own review of input data. Because EPA opted to verify emissions figures itself, it does not enjoy this advantage, and so must collect and disseminate emissions equations inputs. If EPA switched to a third-party verification system, it might be able to avoid disclosing input data, but it cannot do so under the existing rule.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 18

Comment: ACC believes that the intention of the MRR rule is to establish a national GHG emissions data base and not to assess compliance with individual permit or process limits or to evaluate local air quality impacts. A simple way for the Agency to address the many CBI concerns of industry would be to simply report these chemical emissions as an aggregation either

in terms of total CO2e for a process or for an entire site. Aggregation is a method that would protect detailed process information, yet provide the public, regulatory authorities and policy makers with GHG emissions data. Some form of aggregation typically is the method used by air agencies to protect confidential business information.

There are no other calculations or measurement methods that could be used for all of the diverse sources that are regulated under this subpart. The various calculation methods that are listed in the rule were the result of an extensive evaluation by EPA which drew on significant input from the regulated companies. They represent the current practices in the industry.

In previous conversations with ACC, EPA representatives have suggested that Continuous Emissions Monitors (CEMs) might be an acceptable substitute. ACC would note that while CEMs could possibly be used on some air streams and for some constituents, they are not amenable for the universe of processes and vent streams in this source category. ACC also believes that it would be unfair to afford certain parties CBI protection simply because an operation may be compatible with this type of measurement method. Irrespective of these issues, the use of CEMs would not be economical and would not be effective in measuring all of the constituents of concern. The installed cost of a single CEM on a vent would be on the order of $200,000. A large chemical facility can have more than 100 individual vent locations. Moreover, in addition to the cost of the CEMs, mass or volumetric flowmeters would also be required. The measurement devices might not be capable of measuring all constituents and separate analytical measurements would be required for some constituents. It is not clear how this data would be incorporated into a continuous measurement.

In addition to the above, even if a CEM were available for the constituent of interest, these measurement methods would be substantively compromised in batch processes where both mass flow and concentration measurements would need to be integrated. This technical limitation for this type of monitoring method is well understood in the industry even when source testing professionals are employed for this purpose.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 19

Comment: Aggregation of emissions information can be verified using the same traditional means used for reporting of air emission inventory information or air permitting compliance certifications: responsible company officer sign emission reports, and calculation records and other documents are retained on-site to support the reports. This approach would avoid the need to submit sensitive inputs to emission equations. In addition, if the Agency believes it is necessary at this time, third party audits could be used to verify emission information. This has been done already in the context of GHG reporting, in the area of climate inventory procedures and quantities. Audits of this type, if conducted at a reasonable frequency, may be an acceptable

alternative for many sites. In EPA's previous communications, ACC has been led to understand that the purpose of these broad requests for detailed process information were intended to provide the basis for future policy and rule development and not to "verify reported GHG emissions." ACC would point out that much of data being reported by EPA would do little in verifying emission estimates. For example under §§98.126(c)(1)-(3), the quantity of the activity measurement is used to convert the process vent specific emission factor into the mass of each fluorinated GHG emitted. Based on the language in the request for comments, the purpose of reporting both the production quantity and the emission factor is presumed to allow EPA to verify that the mass reported in (c)(3) is correct. This is a simple multiplication and there is little value in reporting this information. It is unlikely that any errors or omissions will occur at this step in the emission calculation process. True "verification" of the emission factor could only occur by an evaluation of the detailed engineering calculations or emission testing results that serve as the basis of the emission factor. We would also point out that the production quantity being reported under these sections may be identical to the values being reported under Subpart OO where EPA has provided broad CBI protections.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 30

Comment: Additional calculation or measurement approaches for a particular subpart that would comparably measure or calculate GHG emissions but would not use data elements that you consider to be sensitive as inputs to emission equations. At a minimum, allowing the aggregation of fuel and feedstock consumption data would help obscure and protect the specific information regarding actual efficiency and production. Such aggregation would not compromise the calculation of the CO2 emissions per equations P-1, P-2, and P-3 under §98.163(b). This approach would not compromise data accuracy at all, nor would it require any increased cost. Further, EPA should allow the consumption to be reported on a "carbon feed" basis – not requiring the disaggregation of fuel/feedstock by type (e.g., tons of fuel/feedstock carbon input to the process). This implies consolidation of the terms "Fdstkn * CCn" in equations P-1, P-2, and P-3 (§98.163(b)) into a single term "FFdstkCarbon" (in units of "kg carbon"). Such a method will still rely on calculation algorithms based on fuel/feedstock consumption and characterization (carbon content and molecular weight) that must be protected as CBI. Again, this approach would not compromise data accuracy, nor require any increased cost.

Additionally, facilities should be given sufficient time to consider and implement alternative, direct emission measurement techniques, if feasible from a technical and resource perspective. This would obviate the need for the data elements otherwise relied upon in emission calculation equations. EPA has already accepted the accuracy of CO2 Continuous Emissions Monitoring System (CEMS) reported emissions values (following the appropriate CEMS assurance protocols) – although it is likely the acceptable inaccuracy inherent in using CEMS are at least as

large, and probably larger, than estimates from the calculations using measured consumptions of cost-bearing streams (e.g., natural gas from supply billing meters subject to commercial calibrations standards). EPA should acknowledge that CO2 CEMS measurement techniques are very costly for facilities that may not have other CEMS already installed to satisfy other environmental compliance requirements (e.g., NOx, CO, etc.). ACC believes that this is an unacceptably costly alternative to protecting CBI that could otherwise be protected by reasonable Part 98 reporting rules. Estimates for facilities with no current CEMS systems can require $100,000 - $300,000 to design and install a CO2 CEMS, and have ongoing operations costs of approximately $10,000 - $25,000 per year, which is a great cost for many facilities to absorb when compared to utilizing emission calculations.

Verification approaches that could be used to verify emission figures and that would not require reporting to EPA the specific data elements you consider sensitive.

EPA should allow for self-certification of the reported results, with the same legal liabilities associated with any factual misrepresentations borne by the facility's responsible official submitting the data. This approach is deemed sufficient for other EPA and state reporting requirements and should be acceptable for GHG emission reporting. EPA has not explained why this approach is unacceptable. Underlying data would be retained solely at the facility and be made available, upon request, for review by EPA or its designated contractor, with all the appropriate confidentiality protections employed.

An alternative, though less attractive approach is for EPA to allow subject sources to employ third-party verification and thereby limit the extent of back-up, calculation supporting data that must be reported, in this way allowing sources to protect process and operating data deemed CBI by them. This would actually improve the confidence and integrity of the reported emissions values, since a more detailed, independent review of the underlying data will be performed. Unfortunately, this approach is a costly alternative for protecting CBI that could otherwise be protected by reasonable EPA reporting rules.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Paul Noe, Vice President, Public Policy and Robert Glowinski, President
Commenter Affiliation: American Forest & Paper Association (AF&PA) and American Wood Council (AWC)
Document Control Number: EPA-HQ-OAR-2010-0964-0012.1
Comment Excerpt Number: 6

Comment: No other federal agency collects data and provides them on a site-specific basis. AF&PA and AWC members regularly provide information to other federal agencies, state agencies, and AF&PA, AWC, and other trade associations. However, in no instance are sensitive data provided for individual facilities. Rather, the sensitive, facility-specific data are aggregated for analysis on an industry-wide, state-wide, or regional basis. This ensures that facilities can protect the proprietary nature of their sensitive data from competitors seeking to deduce production costs by product type, while at the same time providing the information that agencies

need to meet their statutory or regulatory obligations. EPA must recognize, as other federal agencies have, the inherent competitive harm that will come from publishing such a large amount of sensitive data.

Again, the data protection that we seek is consistent with the approach that has been taken by other federal agencies. For example, the Census Bureau carefully controls the data it collects for use in the Bureau's Energy Information Agency (EIA) reports. For Energy Star, EPA has to go through the Census Bureau to access Manufacturing Energy Consumption (MECS) data. The Census Bureau website states:

Title 13 U.S. Code, Section 9, provides complete protection for all reported information. Your census report is confidential. It may be seen only by persons sworn to uphold the confidentiality of Census Bureau information and may be used only for statistical purposes. Our publications provide no information about individual company operations. In addition, the forms you send to us and copies you retain are immune from legal action. Federal law specifically exempts the reports from the provisions of the Freedom of Information Act.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 33

Comment: Additional calculation or measurement approaches for a particular subpart that would comparably measure or calculate GHG emissions but would not use data elements that you consider to be sensitive as inputs to emission equations. ACC believes that one approach for this subpart is to adopt the flexibility to use Subpart PP methodologies in Subpart X for process vents, or the ability to utilize the Subpart PP calculation methodology for CO2 emissions from process vents. Utilizing Subpart PP calculation methodologies in Subpart X would help industry avoid the use of a mass balance based equation and subsequently avoid the public reporting of CBI. CO2 emissions from Subpart X units are comparable in mass to the CO2 emissions from natural gas boilers for steam generation which require Subpart C Tier 2 methodology. However, to directly measure emissions in Subpart X necessitates the use of Subpart C Tier 4, which is considerably more stringent than the other Subpart C Tier calculations. Tier 4 methodology requires a CO2 CEMS which is not practical in all situations. We do not believe that CO2 emissions in Subpart X require Subpart C Tier 4 standards; rather, CO2 being sent to third parties for control should be allowed to calculate using Subpart PP. We respectfully request altering the calculation methodology to provide the ability to substitute information calculated under Subpart PP with the applicable CO2 emission vents in Subpart X. Subpart PP currently requires the calculation of CO2 streams sent offsite from a Subpart X facility. The current methodology requires that the CO2 streams be double reported under both Subpart X and Subpart PP. Rather than double reporting the CO2, we suggest providing the flexibility in

Subpart X to substitute Subpart PP values for CO2 streams. Companies would report all other emissions calculations in Subpart X consistent with §98.243(b).

Another suggestion is to require that the monthly raw material usage rates and production rates be recorded by the owner/operator, and that only the annual CO2 mass emission rates from process operations and process off-gas combustion (as calculated by Equation X-4) be reported. As a verification approach, EPA could then compare annual CO2 mass emission rates between petrochemical product types to see if any values are potentially inaccurate. EPA's publication, "Technical Support Document for the Petrochemical Production Sector: Proposed Rule for Mandatory Reporting of Greenhouse Gases" contains information on the annual production capacity of each petrochemical process covered by this rule so EPA should be able to review annual CO2 emissions along with this information to verify the reported numbers.
Some Subpart X facilities which are required to report GHG emissions by material balance have process vents that contain a mixture of GHG compounds (e.g. methane and CO2) and hydrocarbons. These process vents are frequently routed to a combustion unit (typically a boiler) for energy recovery. Compliance with Subpart X will result in these GHG emissions associated with these streams being double counted – under both Subpart X and Subpart C. We respectfully request that such facilities be allowed to report GHG emissions pursuant to Subpart C in lieu of complying with Subpart X. This alternative method of compliance would increase the accuracy of the source's GHG emissions reports by eliminating the double counting of these emissions, add compliance flexibility for the subject sources and would allow some sources to avoid having to release mass balance information the sources consider CBI. This amendment could be made as follows:

§98.240 Definition of Source Category
(g) A petrochemical production process that directs its GHG emissions subject to Subpart X to a Subpart C covered combustion unit is not part of the petrochemical source category.
In addition to the alternative methods listed above, EPA could add further flexibility to this subpart by allowing facilities to use both a mass balance and continuous emissions monitoring system (CEMS) for a petrochemical process unit. EPA rejected this approach in the final rule (see 74 Fed. Reg. 56322) based on, it appears, the fact that the entity proposing it had not suggested a technique to reconcile the use of CEMS with a material balance. One instance where this is possible is when a portion of a source category has a distinct intermediate feedstock and a distinct product, both with measureable carbon contents. This portion of the subcategory could easily avail itself of the material balance option, leaving the other portions of the source category, i.e. the process emissions from sources that precede the distinct feedstock or are after the distinct product, to rely on CEMS. The CEMS data and the material balance data could then be compiled for a total source category GHG emissions number. This added flexibility would maintain the current accuracy of the emissions for the process unit but would alleviate the concerns of at least one Subpart X subject company of having to divulge CBI.
Finally, many facilities made the decision prior to 2010 to use the material balance approach to comply with Subpart X with the understanding that the material balance calculations and data would be afforded CBI protection. If EPA agrees to allow facilities to use both the material balance and CEMS methodologies, such facilities should be afforded a compliance period in which to install the required CEMS and put in place the QA/QC programs, and should not be required to disclose the material balance information they consider CBI that has been relied on to calculate GHG emissions prior to the time required to get the CEMS installed and operational.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 11

Comment: EPA also requests alternative ways for verifying GHG information that it receives. In response, we have to underscore that the Agency has produced no evidence that such Clean Air Act certifications have not worked over the last forty years for other criteria pollutants.

Clean Air Act Compliance and Reporting Certifications –As we have continued to state in this and related MRR rulemakings, the civil and criminal penalties for companies and individuals associated with reporting erroneous data under the Clean Air Act are more than sufficient to safeguard against the submission of erroneous or falsified data. (For public companies, shareholder derivative suits also provide a backstop against false-reporting.)

Emission Reporting Tool: The Climate Office chose to use its own acid rain emissions platform for collecting and disseminating Greenhouse Gas information, in part based on the expectation of public trading of GHG allowances. However, even within the Office of Air and Radiation (OAR) itself, the National Emission Inventory and National Air Data Retrieval System emission collection and dissemination platforms are better designed to search statistically and reject outliers in emissions data submitted by industry for rulemaking and compliance purposes. In addition, OAR's "Emission Reporting Tool (ERT)" – an analog to "EGRRT" utilized by the Office of Air Quality Planning and Standards for submission of emission data for compliance and other purposes uses statistical profiles to flag outliers in compliance stack tests and equivalent procedures are used to identify outliers in data reported by States to EPA. The ERT can generate automatic responses while the NEI/NADA system still relies on follow-up by officials examining outlier reports. We attach as Exhibit 2, Appendix D of EPA's present draft publication for Designing Emission Factors5 which discusses the development and use of statistical methods for examining submitted emissions data that can identify and "question" data submissions viewed as statistical outliers. The report also examines other methods for conducting QA/QC of emissions data submitted to the Agency. In view of EPA's goals for the collection of GHG data (i.e., regulatory planning), NEDA/CAP submits that ERT, may resolve many issues that EGRRT raises. ERT also allows submitters to readily flag CBI information that is reported for purposes of identifying emissions being reported.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)

Document Control Number: EPA-HQ-OAR-2010-0964-0018.1
Comment Excerpt Number: 6

Comment: EPA seeks information regarding additional calculation or measurement approaches for a particular subpart that would comparably measure or calculate GHG emissions, but would not use data elements that TI considers to be sensitive as inputs to emission equations.

TI supports as an alternative to the Subpart I data reporting requirements in §§ 98.96(a) – (n) provisions in Subpart I that would allow semiconductor facilities to perform stack testing on the facility exhaust systems that exhaust emissions from fluorinated GHG and N2O-using tools. TI's (and SIA's) proposal would be to incorporate stack testing as established in Part 98, Subpart L – Fluorinated Gas Production Methods (40 CF.R. § 98.120), specifically those requirements detailed in Section 98.123.

Subpart L requirements that are relevant to TI's and SIA's stack testing proposal are listed below and accompanied by additional information concerning the approach by which the semiconductor industry could satisfy the specific requirement:

Subpart L Requirement: Section 98.123(c)(1): Preliminary estimate of emission by process vent. You must estimate the annual CO2e emissions of fluorinated GHGs for each process vent within each operating scenario of a continuous process using the approaches specified in paragraph (c) (1) (i) or (c) (1) (ii) or this section, accounting for any destruction as specified in paragraph (c) (1) (iii) of this section.

Semiconductor Industry Option: IPCC Tier 2 methods will be used to estimate raw mass emissions. For one SIA facility, GHG emissions over a 3-year period were estimated based on chemical usage to determine a site wide emission factor for each PFC gas type. All the emission factors were within 15% of the prior year except for 3 gases. The use of these 3 gases was reduced due to a chemical substitution project undertaken to reduce site GHG emissions. We believe that our large mix of recipes qualifies as a single operating scenario. The major changes to the recipes caused by the gas substitution work have been documented and could be used to demonstrate the cause of the change in estimated and measured emissions.

Subpart L Requirement: Section 98.123(c)(3): Process vent-specific emission factor method. For each process vent, conduct an emission test and measure fluorinated GHG emissions from the process and measure the process activity….

Semiconductor Industry Option: The emissions from process stacks would be tested and daily gas usage would be collected during the test period. IPCC tier 2 emissions computations would be compared to the test results to verify the accuracy/relevance of the stack testing and a site wide emissions factor would be determined per PFC gas. The annual gas usage, IPPC tier 2 emissions, and an each PFC emission factor would be used to calculate the annual emissions.

Subpart L Requirement: Section 98.124: Monitoring and QA/QC requirements. Issues: Testing every 10 years or when the operating scenario changes by 15%, process vents with emissions of 25,000 MT CO2e or greater has additional requirements, 3 runs of 1 hour (additional 3 runs if RSD greater than 0.15), manifold options….

Semiconductor Industry Option: Stack testing would be performed every second year after two years of testing has verified that site wide emissions factors do not change by over 15%.

Subpart L Requirement: Section 98.124(e): Emission and stream testing, Issues: Including analytical methods. EPA methods, 1, 2, 3, 4….

Semiconductor Industry Option: The specified testing methods will be used.

Subpart L Requirement: Section 98.124(e)(2): Analytical methods. Use a quality-assured analytical measurement technology capable of detecting the analyte of interest at the concentration of interest and use a sampling and analytical procedure validated with the analyte of interest at the concentration of interest. Where calibration standards for the analyte are not available, a chemically similar surrogate may be used. Acceptable analytical measurement technologies include but are not limited to gas chromatography with an appropriate detector, infrared, Fourier transform infrared, and nuclear magnetic resonance. Acceptable methods for determining fluorinated GHGs include EPA Method 18, 320 or other analytical validated using EPA method 301 or some other scientifically sound validation protocol. The validation protocol may include analytical technology manufacturer specifications or recommendations.

Semiconductor Industry Option: One or more of the above methods could be used, but the intent is that sampling and analysis methodology using of an approved EPA Test Method would be included as an option in a final rule as a stack testing.

Cost and Accuracy

TI's and SIA's stack testing proposal would significantly reduce costs to the industry. The number of stack tests will be significantly less than the number of emissions factors tests that will have to be performed, resulting in significantly reduced costs for implementing the regulation.

A properly designed stack testing method should provide accuracy comparable to the process (for cleans) and recipe level emissions based on emissions factors. Properly designed stack testing methodologies are an accepted emissions testing methodology for a variety of Clean Air Act emissions testing and reporting requirements. Measurement of GHG emissions from emissions stacks using approved EPA testing methods will likely be within 5 percent accuracy compared to the current Subpart I. Compare this accuracy to the accuracy of recipe testing, which is less than 5 percent accuracy due to variations in fab related processes on a microscopic level. TI acknowledges, however, due to major fab related changes, stack testing may need to be repeated.

Similarly, TI has compared the cost of the §98.96(c)(2) approach for measuring each etch recipe emissions compared to measuring emissions from the final emissions point or stack. The cost to characterize each similar etch recipe is estimated to be at least $300K the first year and $100K per year in subsequent years per fab and multiple fabs at TI will require recipe testing. The cost of TI's proposed stack testing method approach is estimated to be $70K for the first year and $35K to $40K per year as necessary per fab.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.1
Comment Excerpt Number: 8

Comment: Verification approaches that would not require reporting to EPA data elements that TI considers to be CBI include TI would provide stack testing results as non-CBI data.

Alternatively, EPA could require that other parameters be used for verification of the stack testing similar to the data element required by § 98.96(c)(2). Such parameters could be used to verify GHG emissions from the fab such as GHG usage and other fab characteristics that may be CBI.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 7

Comment: MLCO acknowledges that the installation of CEMS on certain processes at lime manufacturing facilities may be feasible. MLCO currently does not have any GHG CEMS. However, the installation and continued operation of such equipment and associated data acquisition systems are very costly, and the lead time for the systems can range to eighteen months from the date of order placement.

Despite the significant costs and complexities associated with CEMS installation and continued operation, MLCO believes that the option to install CEMS, and thus NOT submit critical, detailed inputs to emissions equations that we consider to be CBI, is a favorable alternative to the submittal and public release of data elements that would be used to cause significant competitive harm to our company. Correspondingly, if the alternative approach of CEMS utilization to protect data claimed as CBI is sanctioned by USEPA, MLCO suggests that all inputs to emissions equations, as well as other business data we consider proprietary, collected prior to installation and reliable operation of CEMS, receive permanent CBI protection from USEPA.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Glenn E. Davis and John Traeger, Gallop, Johnson & Neuman, L.C.
Commenter Affiliation: Mississippi Lime Company (MLCO)
Document Control Number: EPA-HQ-OAR-2010-0964-0027.1
Comment Excerpt Number: 8

Comment: Status Quo with Vigorous Verification

MLCO emphasizes that it is willing to retain for verification and provide, on a confidential basis, all emissions information reasonably necessary to permit the USEPA to manage the GHGRP and verify GHG calculations. MLCO believes that preserving the relevant data for USEPA review, not only protects the interests of the regulated company, but also preserves the USEPA's right to assess the information submitted to the USEPA under the GHGRP.

MLCO does not believe that existing USEPA procedures for document retention, inspection, and audit are inadequate to assure the USEPA or the public of GHGRP compliance. These robust procedures, coupled with the historic approach of enabling parties to designate confidential and competitively sensitive information has worked effectively. The stated goal of providing transparency to the process does not warrant the level of intrusiveness into the competitive life of reporting companies the initial proposals involve.

Balanced Approach with Review Process

It is recognized that USEPA will use the inputs to emissions equations to verify reported GHG emissions. However, MLCO believes that publicly disclosing such inputs will irreparably harm our company without any countervailing transparency benefits that warrant disclosure of proprietary information. Thus, MLCO suggests that the USEPA afford submitted inputs to emission equations CBI status on an industry specific basis according to the variations in market conditions and the needs of constituents of different markets, and protect such data from public disclosure by requesting and maintaining confidential and non-confidential versions of submitted information, in the process outlined below:

1. Permit companies subject to the GHGRP to make good faith CBI designations for inputs to emission equations;
2. Companies designating information as CBI shall produce required information marked "CBI-Highly Confidential" and shall retain originals of such records in company files for such reasonable period as the USEPA may prescribe;
3. The USEPA shall treat information marked as CBI-Highly Confidential as confidential, and maintain its confidentiality, including exemption from FOIA requests;
4. If the USEPA believes that any information designated CBI-Highly Confidential is not in fact confidential, the USEPA may then request the CBI designation to be withdrawn or seek permission to use the information for specific purposes or use it in redacted or aggregated information format;
5. If the USEPA and any company claiming CBI-Confidentiality over certain information have a dispute over the propriety of that designation, the burden shall be on the company, within thirty (30) days of notice by the USEPA that it demands removal of the CBI designation over the objection of the company, to seek protection through a USEPA appeal process, administered by a Committee to be formed by the USEPA, under the

Administrative Procedures Act. If a company has exhausted this administrative remedy and believes it will be aggrieved by public disclosure of its data, the company may then seek relief from a court of competent jurisdiction within thirty (30) days of notice by the USEPA appeal committee of its final decision requiring removal of the CBI designation over the objection of the company; and

6. Until a final, non-appealable determination is made by the USEPA or a court of competent jurisdiction as outlined above, the USEPA will hold the information as CBI, without prejudice to any of its existing verification audit or inspection procedures.

Certified Independent Verification

Alternatively, MLCO would support establishing a certified third-party review/audit requirement to provide USEPA with report verification without companies publicly reporting sensitive inputs to emission equations.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 4

Comment: As provided in ISO 14064-1, verifications could be performed either internally, by regulatory agencies (or their designees), or by external third-party experts that are specifically accredited to perform such verifications by regulators and who are bound by strict confidentiality agreements with facility operators. Use of a structured verification process, rather than requiring reporting and potential disclosure of multiple data elements is often used to protect business sensitive information, reduce the amount of data reported, and reduce regulators' burden in having to archive and protect all the sensitive data. Notwithstanding who performs the verification, the basic tenets are similar. For example, Section § 95131(b)(6) of the California Air Resources Board (CARB) program specifies among the 'Requirements for Verification Services' that "Operators shall make available to the verification team all information and documentation used to calculate and report emissions, electricity transactions, and other information required under this article, as applicable." Operators have the flexibility to address confidentiality concerns ahead of verification by entering into a 'data confidentiality agreement', which can be executed either with verifiers from the regulatory agencies or commercial verifiers. For a mandatory reporting program, API does not support third-party verification. Third-party verification is onerous, time consuming, and expensive. API supports an approach where information other than the actual emissions results is maintained on site and available for review by either EPA staff or EPA contractors. Such an approach minimizes the potential for sensitive data to inadvertently be released to the public. Such an approach is also consistent with the nature of the GHGRP to report emissions data, not to regulate or control GHG emissions.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific Affairs
Commenter Affiliation: American Petroleum Institute (API)
Document Control Number: EPA-HQ-OAR-2010-0964-0030.1
Comment Excerpt Number: 5

Comment: The Call for Information requests comments on additional approaches to calculating GHG emissions that do not use data elements that may be considered sensitive. In developing our comments, API compared the emission estimation methodologies provided in the GHGRP to methodologies provided in the API Compendium. API has suggested alternate estimation methodologies in our comments on the original proposed GHGRP and amendments. The API Compendium provides multiple emission estimation approaches for most GHG emission sources, including simple emission factors, equipment/manufacturer emission factors, process modeling, engineering estimation approaches, and monitoring methods. All emission estimation methods, which do not directly measure the emissions (API has previously commented on the limitations and prohibitive costs associated with directly measuring GHG emissions associated with petroleum industry operations), require the use of process parameters or operational information, much of which is business sensitive, and therefore should not be made public.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 15

Comment: DuPont believes that EPA's approach to GHG reporting . . . . should have been constructed much like the TRI reporting program, wherein the general methodologies for emissions determinations are reported, along with composites of emissions data. In the case of the GHG MRR, aggregations of facility-wide GHG emissions (i.e., CO2e), along with certification by the Designated Representative, should have been sufficient, with the foundational calculations maintained at the site for EPA review.

As a specific response to the third point of inquiry in the Agency's *Call for Information*, DuPont believes that one other approach exists as a reasonable alternative: Periodic stack emissions testing. Much like many of our current air permits, and for parameters like PM, NOx, VOCs, *etc*., stack testing of CBI sensitive sources could be done on major GHG emission sources. Frequency of testing could be similar to that performed for other parameters, and possibly performed at the same time as to maximize coordination and minimize costs. Frequency requirements would have to be reasonable considering the cost of the testing. Direct measurement of GHG emissions would seemingly delete the need for emission calculations and

possible CBI therein. For example, the results could be averaged and expressed on an hourly basis, then multiplied by the number of hours of operation in the reporting year. EPA would have the prerogative to inspect the monitoring (*i.e.,* stack testing) plan and to oversee the stack testing itself.

We note that one particular alternative that has been suggested is simply not cost reasonable: Continuous emission monitors (CEMs) on every stack for every GHG compound. Problems include the following:

- Extreme capital and maintenance costs

- Unavailability of CEMs for many F-GHGs

We also note that the accuracy of CEMs is not as good as activity based determinations such as amount of fuel combusted.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 16

Comment: Provided that the Agency manages CBI information securely, DuPont is not taking particular issue with the submittal of the data it uses to estimate emissions. The issue is that the Agency has proposed to divulge the information to the public, including domestic and foreign competitors. Thus, there is no need for an alternative to the Agency's verification plan, assuming that the verification is to be conducted by EPA or an Agency contractor under a confidentiality agreement.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Robert A. Reich, P.E., Manager, Global Environmental Stewardship
Commenter Affiliation: E.I. DuPont de Nemours and Co.
Document Control Number: EPA-HQ-OAR-2010-0964-0034.1
Comment Excerpt Number: 22

Comment: There are some reasonable alternatives to the approaches that EPA has taken in this reporting rule. We believe that the best approach would be similar to that used in TRI reporting, as the level of precision, accuracy and detail that EPA is requiring is unwarranted for this type of regulation. Short of that, periodic stack testing – although at a cost-reasonable frequency – might

be a viable alternative approach, as well. We explained that continuous emissions monitoring would often not be feasible, either technically or economically.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: David Isaacs, Director Environmnet, Safety and Health
Commenter Affiliation: Semiconductor Industry Association
Document Control Number: EPA-HQ-OAR-2010-0964-0038.1
Comment Excerpt Number: 1

Comment: On March 7, 2011 the Semiconductor Industry Association submitted comments on the U.S. Environmental Protection Agency's "Call for Information: Information on Inputs to Emission Equations Under the Mandatory Reporting of Greenhouse Gases Rule," 75 Fed. Reg. 81,365 (Dec. 27, 2010). Those comments, which have been docketed at EPA–HQ–OAR–2010 0964-0024.1, contain two small, but consequential technical errors. In addition, a figure illustrating comparative emission determined using a proposed abatement unit categorization method was omitted from the original comments. We therefore submit a revised version of our comments that includes the two corrections and the supplemental figure, and request that EPA add these comments to the docket and refer to them rather than those submitted on March 7.

Correction 1

On page 11, sub-item d, the "(u)" following the words "process utilization factor" has been removed, as it conflicts with the "u" in the equation on the following page, which represents the uptime of the abatement units.

Correction 2

On page 12, the equation presented and the definitions of variables provided have been revised

to read as follows:

Eij = Cij * (1 - dij * uj) where:

Eij = The emissions associated with the total use of gas i treated by abatement system type j.

Cij = The total use of gas i allocated to abatement system type j.

dij = The destruction efficiency of gas i as measured for a sample of abatement system type j

in accordance with the requirements in 98.94 (f)(4).

uj = average unit uptime for the total number of abatement units of type j at the facility.

i = chemical type.

j = abatement system type.

In the above, the definitions are modified slightly, though the key modification is the substitution in the equation of "(1 - d)*(uj)" with "(1 - d*uj)".

Supplemental Information

A figure was omitted from page 12 which illustrates that GHG emissions calculated using the

proposed abatement unit characterization method fall within the range of emissions calculated using the methods currently allowed under the Final Subpart I. This figure has been inserted and the accompanying text modified slightly to reflect its insertion.

From Page 11 of Revised 0964-0024.1

In anticipation of working with EPA in the course of reconsideration and in judicial review settlement discussions, SIA and its member companies are in the process of developing three alternative emissions estimation processes/procedures which would replace those in the Final Subpart I. SIA's proposed alternatives would reduce the sensitivity and/or the amount of confidential data that might potentially be made public either through the required emissions report to EPA or through the verification and assessment process specified in the Final Subpart I. SIA's proposed alternatives, which are explained in further detail below, can be summarized as follows.

A. Proposed Abatement Unit Categorization Method

For facilities with abatement systems, SIA's proposed alternative is as follows:

a. The facility would perform an allocation of the gas use to the abatement unit types, except where no abatement units were in use. Where abatement systems are not in use, that gas would be allocated by process and sub-process types as in the Etch Emissions Factor Method proposed above.

b. Where abatement systems are installed, the tested destruction or removal efficiency (DRE) for each abatement unit type would be applied to the gas use allocated to those abated systems. The emissions calculations would be performed as described below.

c. For unabated gas usage, emissions would be estimated as in Etch Emissions Factor Method described above.

d. This analysis of emissions is conservative, as any benefit of the process utilization factor is not included in the emissions calculation. Facilities would continue to have the option of applying the process emissions factors prior to applying the DRE of the abatement units.

The emissions calculation would be performed using the following equation:

Eij = Cij * (1- dij * uj) where:

Eij = The emissions associated with the total use of gas i treated by abatement

system type j.

Cij = The total use of gas i allocated to abatement system type j.

dij = The destruction efficiency of gas i as measured for a sample of abatement

system type j in accordance with the requirements in 98.94 (f)(4).

uj = average unit uptime for the total number of abatement units of type j at the

facility.

i = chemical type.

j = abatement system type.

The total emissions for the facility would be calculated by summing the individual emissions calculations for each gas type/abatement unit combination and the emissions calculated using the process emissions factors where no abatement units were in use.

B. Cost and Accuracy of the Proposed Alternative

The above calculation approach would result in a conservative estimate of process emissions from the facility, as the utilization of the gas in the process chamber would not be subtracted from the gas use prior to calculating the emissions. This error is comparable to the anticipated error associated with Final Subpart I methods. As shown in the figure below, analysis of a representative facility's data demonstrates that emissions calculated using abatement unit characterization easily fall within the range of emissions calculated using reporting methods currently allowed under Subpart I (*i.e.*, application of DREs measured per Section 98.94(f)(4), the default DRE per Section 98.94(f)(3), or DRE = 0). This approach would allow some reduction in costs from the Final Subpart I, as a facility with abatement units would not need to incur the cost of tracking and managing gas use by process category type. The measurement of destruction efficiency is already required under the rule where a company chooses to reflect emissions reductions but not to use the 60% default destruction factor. Emissions would be calculated by multiplying the allocated gas use times the measured destruction efficiency.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Robert N. Steinwurtzel, Counsel, Baker & Hostetler LLP
Commenter Affiliation: Association of Battery Recyclers, Inc. (ABR)
Document Control Number: EPA-HQ-OAR-2010-0964-0019
Comment Excerpt Number: 12

Comment: Toxic Chemical Release Inventory ("TRI") Program

The EPA should consider its own TRI program. *See* 40 CFR Part 372, *et seq.* The TRI has been operational for almost 25 years. The TRI data that is available to the public includes facility information and emissions data. Facilities are allowed to use direct measurement, monitoring data, emissions factors, engineering estimates, and mass balance calculations in order to determine emissions. Facilities are required to report only the method that was used to calculate its emissions and the measured or calculated emissions data for each chemical.

EPA's TRI recordkeeping requirements are similar to the recordkeeping requirements of the GHG Reporting Rule. An essential component of the TRI process involves EPA's ability to review facility records for accuracy and completeness. EPA may request documentation from the facility that supports and verifies the information reported, and EPA may conduct data quality reviews to verify the accuracy of TRI submissions. All of these TRI verification components are available to EPA and equally applicable for the GHG Reporting Rule.

Furthermore, both the TRI and the GHG Reporting Rule require a designated company official to verify the facility reports. Both the TRI's registered certifying official and the GHG Reporting Rule's designated representative are responsible under penalty of law to ensure that information submitted is accurate. There are no incentives for facilities to submit inaccurate data under these programs. As explained in Section I.C., *supra*, such an approach effectively balances the interests of the public with the confidentiality needs of business.

The TRI program is designed to provide for the public's right to know about the release to their environment of chemicals. Conversely, as EPA itself states, the GHG Reporting Rule was developed merely for the purpose of facilitating a better understanding of GHG emissions sources and informing future climate change policy decisions. *See* 74 Fed. Reg. 56265. Therefore, the transparency and accuracy provisions of the TRI program are more than adequate to assure transparency and accuracy of data reported under the GHG Reporting Rule. With such an alternative available, EPA cannot justify exposing sensitive business information under the GHG reporting Rule.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Thomas P. Diamond CIH Director, Environmental, Health & Safety[59]
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2009-0927-0131.1
Comment Excerpt Number: 2

Comment: An "Alternative Refined Method" Would Achieve Greater Data Accuracy As Compared With EPA's Proposed Refined Method, And In Doing So, Would Avoid Undue Burden

[59] This comment is incorporated by reference in EPA-HQ-OAR-0964-0026.

As the ISMI Survey Report for the original Proposed Rule indicated that 81% of respondents currently estimate gas purchases, typically by relying on the Intergovernmental Panel on Climate Change (IPCC) default gas usage 10% heel factor. The Report also demonstrates that only one large company uses IPCC Tier 3; the remainder of Survey participants estimate emissions via IPCC Tier 2a, 2b, or some combination of tiers, with the majority of companies using Tier 2a.

However, SIA has never asserted that EPA should accept this status quo. Instead, we have been urging the Agency to adopt an enhanced version of the IPCC methodology. Through our recent dialogue with EPA between its original Proposed Rule and during the Re-Proposal comment period, SIA has identified an "Alternative Refined Method" that is far superior to the Proposed Refined Method in terms of both accuracy and cost. This Alternative Refined Method would consist of the four key components:

1. Gas-Specific Consumption Factors: Require, unless infeasible, that a facility develop a heel factor specific to each type of cylinder and for each gas type based on the point established as the trigger for changing out the cylinder. As explained in our comments on the original Proposed Rule – and reiterated in our comments today – gas-specific consumption factors reduce the uncertainty associated with the default heel factor currently being used under the IPCC method. We are pleased that EPA has included gas-specific consumption factors as a requirement in the Re-Proposed Rule. As explained in our comments today, however, the proposed § 98.123's cylinder tracking and 1% accuracy measurement devices calibration requirements do not accord with current industry practices and would entail significant costs without a commensurate gain in accuracy.

2 Facility-Wide Apportioning Protocol: Facility-Wide Apportioning Protocol: Require apportioning of gas usage based on an alternative to the Proposed Refined Method that apportions across the following five process categories: (1) CVD Chamber Cleaning – in-situ Plasma; (2) CVD Chamber Cleaning – Remote Plasma; (3) CVD Chamber Cleaning – in-situ Thermal; (4) Etch; and (5) Wafer Cleans. These five process categories, as explained in our comments, would move beyond the two IPCC Tier 2b categories to achieve greater accuracy, but would avoid the uncertainly issues created by the Refined Method's 9 categories. To assure a sufficient degree of accuracy, this apportionment among the five categories should occur based on a combination of at least one quantifiable indicator and engineering judgment.

Facility-specific engineering models that are based on some quantifiable indicator(s) related to the facility's tool and infrastructure configuration are more appropriate for apportioning gas consumption to individual process categories at a higher level (CVD vs. Etch but not sub-categories for etch). Most facilities will need to incorporate one or more indicators in a model to accurately apportion gases. Among these indicators are: measuring gas usage to a specific tool that may run a single process category or multiple (albeit related) process categories; tool monitoring data; process monitoring data; tool utilization data; and engineering specifications.

3. Tier 2b For All, Except Tier 3 Where Available: Require use of Tier 2b emissions factors by all facilities, except require use of Tier 3 measurement data where in possession of a facility, for the etch and CVD categories. Require use of the emissions factors in EPA's Notice of Data Availability (NODA)4 for 2 additional categories (CVD Chamber Cleaning – in-situ Thermal

and Wafer Cleans). For heat transfer fluids, require a mass balance method keyed to purchase and offsite shipment.

4. Abatement Default Factors: Allow for default factors based on abatement installed capabilities, but otherwise allow for a reasonable DRE test sample size and timeframe. Section 98.96 of the Re-Proposal would prohibit semiconductor manufacturers from obtaining full credit for the emissions reductions provided by their GHG abatement devices unless the source undertakes the following measures on an annual basis:

(1) a certification that each abatement system has been installed and is maintained, and operated in accordance with manufacturers' specifications;

(2) an accounting of each system's uptime;

(3) a random sampling of 3 units or 20% of installed units (whichever is greater), following EPA's DRE protocol.

SIA is concerned that the foregoing measures would require semiconductor manufacturers to generate a large amount of information on an annual basis for the hundreds of point of use (POU) abatement devices used for GHG control on individual process tools. Doing so would prove quite costly and burdensome. Indeed, the ISMI Supplemental Survey Reports indicate that EPA's cost assumptions on POU abatement compliance would run an estimated $242,000 per fab – not the $70,000 per fab estimated by EPA – and would be incurred by 29 instead of the 23 facilities assumed by EPA. As a result, annual compliance costs would run $7 million for this element alone – not including lost production time – instead of the $1.61 million estimated by EPA.

We acknowledge that the Re-Proposal would allow the use of a default DRE value in lieu of the foregoing, and appreciate U.S. EPA's willingness to provide this option in contrast to the original proposal, which would not have provided any such option. The Re-Proposal's 60% default DRE value, however, falls well short of the GHG control offered by POU devices, and therefore, penalizes semiconductor manufacturers who have operated voluntarily and in good faith under the MOU and other GHG reduction programs to install and maintain control devices.

SIA recognizes the importance of using test data, where available, but would submit that where a device has been designed for GHG reductions, default factors reflect test data with sufficient accuracy and that testing should be required only for new models of abatement systems that are not simply a variant of an existing system. Moreover, periodic testing is not necessary as long as a facility operates equipment properly.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)

Document Control Number: EPA-HQ-OAR-2010-0964-0024.1
Comment Excerpt Number: 6

Comment: In anticipation of working with EPA in the course of reconsideration and in judicial review settlement discussions, SIA and its member companies are in the process of developing three alternative emissions estimation processes/procedures which would replace those in the Final Subpart I. SIA's proposed alternatives would reduce the sensitivity and/or the amount of confidential data that might potentially be made public either through the required emissions report to EPA or through the verification and assessment process specified in the Final Subpart I.

Proposed Stack Testing Method

The third alternative provides a facility with the option to conduct stack testing on the facility exhaust systems that exhaust emissions from fluorinated GHG-using tools. A similar approach would be adopted for tools using Nitrous Oxide (N2O), with differences specific to the properties of that gas. The proposed stack testing method for fabs is patterned after the general requirements established in Subpart L – Fluorinated Gas Production Methods, specifically those requirements detailed in Sections 98.123 and 98.124 which allow facilities to develop and use alternative F-gas test methods and procedures to identify and quantify F-gas in emission streams, provided that these methods are appropriately validated and are documented in the facility's GHG Monitoring Plan. In accordance with these precepts, it is proposed that a fab will conduct stack emissions testing for F-gases based on the following principles.

- Quality-assured analytical measurement technology will be used that is capable of detecting the analyte of interest at the concentration of interest.
- Sampling and analytical procedures will be validated with the analyte of interest at the concentration of interest.
- Where calibration standards for the analyte are not available, a chemically similar surrogate will be used.
- Analytical methods for determining fluorinated GHGs shall include one or more of the following:

o EPA Method 18 [EPA Test Method 18, 40 C.F.R. Part 60, Appendix A - VOC by GC] in Appendix A-1 of 40 C.F.R. part 60;

o EPA method 320 [EPA Method 320 - Vapor Phase Organic & Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy] (FTIR) in Appendix A of 40 I.E. part 63;

o EPA 430-R-10-003 (Protocol for measuring F-gas DRE in semiconductor equipment, Mar 2010) incorporated by reference *see* 98.7);

o ASTM D6348-03 [ASTM D6348 - 03(2010) Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface FTIR Spectroscopy] (incorporated by reference, *see* 98.7);

o Other analytical methods validated using EPA Method 301 [Method 301--Field Validation of Pollutant Measurement Methods from Various Waste Media] at 40 C.F.R. part 63, Appendix A; or

o Some other scientifically sound validation protocol, as allowed under 98.124(e)(2).

- A company will conduct a preliminary estimate of the F-gas emissions from the principal F-gas emitting stacks at its semiconductor manufacturing facility, using IPCC Tier 2 methods to estimate the raw mass emissions. These data will be

used to determine the appropriate sample point locations, and analytical methods for those sample points.

- A *de minimis* quantity of F-gas emissions will be established, below which stack emissions measurements do not need to be conducted on a particular stack.
- Testing will be conducted at normally intended operating conditions, and will be comprised of three replicate samples, or alternatively, a single longer duration time integrated sample.
- During the test period, the fab will measure the stack velocity and flow rate, at each stack being tested for F-gases, using scientifically based stack emissions testing methodology.
- Emissions during the period of the stack testing period shall be calculated from the measured stack flow rate and measured concentration, as consistent with conventional engineering practice.
- During the test period, the fab will record, or estimate relevant information pertaining to gas usage and wafer production during the test period. It will also provide information on the operational status of F-gas abatement units that may be installed upstream of the stacks being tested.
- An appropriate testing frequency shall be established for semiconductor fabs that is based upon sound practice, as consistent with the need to account for variation and or potential changes in the stack loading. For instance, under Subpart L, stack testing is to be conducted every 10 years, or when the operating scenario changes by 15%.
- Emissions reporting for the year will be based upon the annual measured emissions across all stacks within the fab, subject to the *de minimis* emissions quantity. Additionally, a fab will report a prorated annual fab-wide emissions quantity that is based upon an annualized recorded production metric and the particular production and emissions on the day of the emissions measurement.

B. Cost and Accuracy of the Proposed Alternative

Stack testing constitutes a direct method of emissions determination that is widely accepted and frequently employed under a variety of applications under the Clean Air Act. As a direct measurement, a properly designed and executed stack testing method should provide accuracy that equals or exceeds that of the emissions factors estimation method in Final Subpart I or the alternative emissions factor estimation methodologies proposed in this document. Moreover, the use of a stack testing method for F-gas and N2O emissions reporting should be considerably less expensive than emission factor-based methods and would significantly reduce the intellectual property exposures associated with those methods as well.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Robert N. Steinwurtzel, Counsel, Baker & Hostetler LLP
Commenter Affiliation: Association of Battery Recyclers, Inc. (ABR)
Document Control Number: EPA-HQ-OAR-2010-0964-0019
Comment Excerpt Number: 10

Comment: The ABR is unaware of any additional calculation or measurement approaches which could be applied to sources subject to Subparts C and R which that comparably measure or calculate GHG emissions but would not use data elements considered to be sensitive business information.

The ABR notes that Subpart Q which applies to certain iron and steel production facilities provides an optional site-specific emission factor method for determining process CO2 emissions from certain furnaces. This site-specific emission factor method involves conducting annual emission testing to measure CO2 emissions, calculating a site-specific emission factor for each furnace process, and calculating the CO2 emissions from each furnace process by multiplying the emission factor by the total amount of feed or production, as applicable, for the reporting year. However, use of a similar method by secondary lead recyclers does not fully address concerns about disclosure of fuel quantity and characteristic information used to calculate emissions from non-furnace sources. Also, pursuant to 40 CFR §98.176(f), users of the method are required to report details to develop the emission factor, which include raw material feed rates or production rates during emission testing. EPA proposes that this information will not be afforded CBI protections. Thus, use of this method results in disclosure of the same data elements that the ABR considers sensitive business information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2010-0964-0024.1
Comment Excerpt Number: 4

Comment: In anticipation of working with EPA in the course of reconsideration and in judicial review settlement discussions, SIA and its member companies are in the process of developing three alternative emissions estimation processes/procedures which would replace those in the Final Subpart I. SIA's proposed alternatives would reduce the sensitivity and/or the amount of confidential data that might potentially be made public either through the required emissions report to EPA or through the verification and assessment process specified in the Final Subpart I.

ETCH EMISSIONS FACTOR METHOD

The following proposed alternative method would replace the requirements in Section 98.93(a)(2)(ii).

A. Criteria For Devising an Alternative Etch Emissions Factor Categorization Approach

The principal criteria for devising an alternative etch emissions factor categorization method and approach can be summarized as follows.

- Scientific Soundness: The categorization of plasma etch processes must be predicated on a sound physical basis, with the exception that they result in emission factors measurements that are reasonably and statistically consistent for a given category.
- Feasibility: The method must be logistically, technically, and economically feasible across the range of fab operations represented by the US semiconductor industry. In particular, there must be a viable means of tracking and apportioning gas use for each category, including physical infrastructure, IT, and reporting functions.
- Minimization of Intellectual Property Exposure: The etch recipes and features etched by many companies constitute highly valuable Intellectual Property. The data collection and reporting should minimize potential IP exposure risk.

B. Proposed Etch Emissions Factor Method

The basis upon which etch processes will be categorized under the proposed alternative method can be summarized as follows:

- The dissociation of F-gas during etch [The dissociation of the F-gas in the manufacturing process directly affects the quantity of unreacted F-gas that will be emitted from the process and is a key contributor to the value of the default emissions factor that would be developed under the Etch Emissions Factor Method], which leads to emission of GHGs, is driven by a defined set of physics, that is primarily dependent upon:
- Tool design variables such as the plasma RF source and frequency, chamber geometry, wall composition, etc. Tool design variables are largely fixed variables for a given tool.
- Equipment operating variables such as the feed gas composition, chamber pressure, bias, etc., which are varied in accordance with the characteristics of the film and feature being etched, along with the etch performance requirements.
- Substrate being etched.
- Collectively, the process design parameters and equipment operating variables, in conjunction with the exposed material surfaces, determine the in-situ characteristics of the plasma, the plasma reaction chemistry, and the plasma interaction with the substrate. The in-situ plasma state, and therefore the GHG gas emissions from the etch process, are thus anticipated to be consistent for a given combination of tool design variables, substrate, and operating parameters.

Based on these considerations, SIA will propose a categorization of plasma etch processes into reasonable groupings for which similar substrate materials are exposed to similar in-situ plasma conditions. The proposed alternative methodology would use the equations provided in Section 98.93, with the following changes in variable description:

- The variable "j" would represent the process or sub-process type, rather than the recipe type.

Otherwise, the calculation equations in Section 98.93 would remain the same.

C. Benefits of the Proposed Method

The above described etch process groupings, which represent a categorization at a "sub-process" [*See* Figure 1: Typology for Calculating Fluorinated GHG Emissions from Electronics Manufacturing at 75 Fed, Reg. 74,779 (Dec. 1, 2010). The proposal is to break the "Plasma Etching" process type into several "Process Sub-Types" rather than to the "Production Process Recipe" category] level as opposed to the recipe level specified in the Final Subpart I regulation, offers a significant improvement in the protection of confidential business information as well as an improvement in the overall viability of the etch emissions estimation methodology. These improvements include:

- The sub-process level analysis protects recipe level data, which for many semiconductor manufacturers constitutes highly valuable and proprietary intellectual property.
- The sub-process level of etch process categorization enables manufacturers to make the minor process changes required to address their specific technical needs while still generating representative emissions factors.
- By identifying and performing emissions testing at the sub-process level of etch categorization, issues with multi-film etch processes are avoided.
- By identifying and performing emissions testing at the sub-process level, the difficulties with regard to recipes that act under automated process control (APC) are eliminated, along with the attendant need to continually analyze and classify "morphing" etch recipes, as would be required under the "similar" recipe definition of Final Subpart I.

While SIA and ISMI are in the process of refining the proposed etch process emission factor method, we believe that this proposed approach can be anticipated to create a meaningful categorization of etch processes which can serve as the basis for a revised Subpart I rule, enable the generation of applicable, accurate default emissions factors, provide an acceptable level of accuracy in emissions estimation, and develop the default emissions factors using an affordable process with a cost commensurate with the impact of the sector's emissions, while protecting the confidential business information of the semiconductor manufacturers.

D. Cost and Accuracy of the Proposed Alternative

Three general statements can be made to address the EPA's request for cost and accuracy data for the proposed, alternative method.

1. Estimating emissions for a reduced number of gas and process type subcategories that are applicable across the semiconductor manufacturing industry, and using industry wide emission factors, is estimated to reduce the aggregate first year cost of etch emission factor testing by 80% to 90% from that required by the Final Subpart I. Similar efficiencies would be realized in annual ongoing testing costs. This cost reduction estimate is based on the SIA estimate of the cost of implementing the Mandatory Reporting Rule that was presented to EPA on December 10, 2010

[Page 10 of the SIA presentation to EPA on December 10, 2010, titled "ISMI 10-Dec MRR Presentation to EPA.pdf"]. This estimate does not include the reduction of costs associated with not having to track and manage re-assessment of the similar recipe categories and the allocation of gas use to specific groups of similar recipes. Although dramatically reduced, the testing costs associated with SIA's proposed alternative would still be one to two times EPA's estimate of the total cost of industry compliance with all aspects of Subpart I.

2. Under the proposed method, semiconductor manufacturers can pool their resources to generate the default emission factor for each relevant gas/film/feature/equipment category, rather than having to generate facility specific emissions factors. This enables the semiconductor manufacturers to significantly reduce the etch emissions testing costs as compared to the promulgated rule, which requires facility level testing, while maintaining a comparable level of accuracy.

3. The accuracy of the GHG emissions estimates calculated using the default etch emissions factors generated through the approach outlined above is anticipated to be roughly similar to that achieved under the "similar" recipe approach in Final Subpart I. The process and/or sub-process level categorization of emissions factors, based on the process and equipment characteristics, will support the development of etch emissions factors based on a statistically and scientifically based design of experiments approach, yielding representative emissions factors for each relevant gas and process category combination.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2010-0964-0024.1
Comment Excerpt Number: 7

Comment: In general, EPA can rely on its Clean Air Act authorities to perform compliance auditing, and such auditing could provide a means to verify GHG emissions figures under the Reporting Rule. Given the significant extent and high intellectual property value of CBI that would be implicated by the current Final Subpart I, however, such auditing would need to occur on a "no copy/no documentation revealing CBI" basis. Under such an approach, the information underlying emissions figures would never be submitted directly to EPA, but verification of emissions figures based on such information would occur via an audit by EPA or a 3rd party. The audit would take place wholly on a facility's site, but to avoid compromising intellectual property, the auditors would make no copies and would not create any documentation or records that contain or otherwise reveal CBI.

In light of various Clean Air Act provisions that allow for citizens suits and public involvement in the GHG permitting process, such a verification audit approach would not necessarily be a legally sustainable means in all situations to verify a semiconductor manufacturing facility's emissions figures, and yet, at the same time, protect the information underlying those emissions figures from disclosure. Difficulties also would arise in shielding this CBI information from

submission to EPA, and ultimately from disclosure, in the event the verification audit raised a question of potential noncompliance.

Moreover, even in situations not raising the foregoing legal issues, a "no copy/no documentation revealing CBI" verification audit approach still would not provide adequate protection for such significant and high value intellectual property. Indeed, this intellectual property would remain vulnerable to improper disclosure under the approach as a result of the "residual knowledge" that the auditor(s) would retain in their memory and therefore inevitably "carry" with them when they left the facility. A person with a working knowledge of semiconductor etch processes could glean sufficient information from an examination of the recipe level data required to be maintained under the rule to impart critical knowledge, either intentionally or inadvertently, to another technical specialist that would enable them to understand and apply specific aspects of the CBI and use it to develop "new" manufacturing methods (where trade secrets are breached) or improve their existing processes. Notably, companies in the semiconductor industry recognize this risk in their dealings with partners and customers and take it into account in determining whether to engage and how to conduct themselves in commercial engagements such as joint development agreements.

The foregoing reasons underscore, among others set forth in SIA's petition for reconsideration, why the current Final Subpart I's recipe-by-recipe-based compliance structure simply is not viable. In an audit situation, there is no fool proof way to eliminate risk to our significant and high value intellectual property; in our opinion, it is imperative that EPA modify the 98.93(a)(2)(ii) requirements as proposed in the response to question 3 in order to effectively protect the recipe level data. It should be recognized, however, that the verification of the emissions calculations/estimates generated under the proposed alternatives in SIA's Question 3 response still implicate CBI. Even under this alternative approach, therefore, the submission of CBI information to EPA must be kept to a minimum. To do so, SIA would urge EPA to verify compliance through periodic auditing designed to protect CBI to the maximum possible extent. One auditing approach which could be utilized by EPA or its contractors would be to perform a process level audit. Such an audit would assess the overall business process for estimating facility GHG emissions including sampling and testing of data sources, calculations, emissions factors and other relevant data, but the final report would assess the ability of the process to deliver GHG emissions estimates in compliance with the Mandatory Reporting Rule requirements without mentioning or discussing CBI data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: David Isaacs, Director, Environment, Safety and Health
Commenter Affiliation: Semiconductor Industry Association (SIA)
Document Control Number: EPA-HQ-OAR-2010-0964-0024.1
Comment Excerpt Number: 5

Comment: In anticipation of working with EPA in the course of reconsideration and in judicial review settlement discussions, SIA and its member companies are in the process of developing

three alternative emissions estimation processes/procedures which would replace those in the Final Subpart I. SIA's proposed alternatives would reduce the sensitivity and/or the amount of confidential data that might potentially be made public either through the required emissions report to EPA or through the verification and assessment process specified in the Final Subpart I.

ABATEMENT UNIT CATEGORIZATION METHOD

A. Proposed Abatement Unit Categorization Method

For facilities with abatement systems, SIA's proposed alternative is as follows:

a. The facility would perform an allocation of the gas use to the abatement unit types, except where no abatement units were in use. Where abatement systems are not in use, that gas would be allocated by process and sub-process types as in the Etch Emissions Factor Method proposed above.

b. Where abatement systems are installed, the tested destruction or removal efficiency (DRE) for each abatement unit type would be applied to the gas use allocated to those abated systems. The emissions calculations would be performed as described below.

c. For unabated gas usage, emissions would be estimated as in Etch Emissions Factor Method described above.

d. This analysis of emissions is conservative, as any benefit of the process utilization factor (u) is not included in the emissions calculation. Facilities would continue to have the option of applying the process emissions factors prior to applying the DRE of the abatement units.

The Emissions calculation would be performed using the following equation:

Eij = Cij * (1-dij) * (uj) where:

Eij = emissions associated with the total gas i use treated by an abatement unit of

type j.

Cij = total gas i allocated to the abatement system of type j.

dij = destruction efficiency for a sample of the specific abatement unit as

measured in accordance with the requirements in Section 98.94(f)(4).

uj = average unit uptime for the total number of abatement units of type j the

facility.

i = chemical type

j = abatement system type.

The total emissions for the facility would be calculated by summing the individual emissions calculations for each gas type/abatement unit combination and the emissions calculated using the process emissions factors where no abatement units were in use.

B. Cost and Accuracy of the Proposed Alternative

This calculation approach would result in a slight overestimation of process emissions from the facility, as the utilization of the gas in the process chamber would not be subtracted from the gas use prior to calculating the emissions. A set of general calculations using one facility's data indicated that when calculating emissions as defined in method 2, where abatement system destruction efficiencies are 90% or greater, the anticipated error in the calculation is a 4-8% over-estimation. This is comparable to the anticipated error in the calculations defined in 98.94(f)(1-3), where a default abatement system destruction efficiency of 60% is specified.

This approach would allow some reduction in costs from the Final Subpart I, as a facility with abatement units would not need to incur the cost of tracking and managing gas use by process category type. The measurement of destruction efficiency is already required under the rule where a company chooses not to use the 60% default destruction factor. Emissions would be calculated by multiplying the allocated gas use times the measured destruction efficiency.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Keith Adams, PE, Environmental Manager, Climate Change Programs
Commenter Affiliation: Air Products and Chemicals, Inc.
Document Control Number: EPA-HQ-OAR-2010-0964-0009.1
Comment Excerpt Number: 12

Comment: Facilities should be given sufficient time to consider and implement alternative, direct (CEMS) emission measurement techniques obviate the need for the data elements otherwise relied upon in emission calculation equations. EPA has already accepted the accuracy of CO_2 CEMS reported emissions values (following the appropriate CEMS assurance protocols) – although it is likely the acceptable inaccuracy inherent in using CEMS are at least as large, and probably larger, than estimates from the calculations using measured consumptions of cost-bearing streams (e.g. natural gas from supply billing meters subject to commercial calibrations standards). EPA should acknowledge that CO_2 CEMS measurement techniques are, however, very costly for facilities that may not have other CEMS already installed to satisfy other environmental compliance requirements (e.g. NOx, CO, etc.) – so this is considered a very costly alternative to protecting CBI that could otherwise be protected by judicious EPA rules. Estimates for facilities with no current CEMS systems can require $100,000 - $300,000 to design and install a CO_2 CEMS and have ongoing operations costs of approximately $10,000 - $25,000 per year.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Stuart A. Clark, Air Quality Program Manager
Commenter Affiliation: Washington State Department of Ecology
Document Control Number: EPA-HQ-OAR-2010-0929-0015.1
Comment Excerpt Number: 4

Comment: Ecology is also concerned about further changes to EPA's GHG reporting program resulting from the December 17 call for information. Any additional changes would require Ecology to revise Washington's GHG reporting rule. Program changes are costly to reporters and cloud comparison of a facility's emissions over time. Changing the way emissions are calculated just to protect CBI is a dangerous precedent and should be undertaken with great caution. There are methods to protect CBI without changing the protocols. Ecology will gladly work with EPA to protect truly confidential data while achieving a robust, transparent, and verifiable GHG reporting program.

EPA's GHG reporting program already includes the option for several source categories to use continuous emission monitoring systems (CEMS) to calculate and report their emissions. The option to use CEMS protects CBI, reduces the need for rule revisions, and results in high quality, verifiable reported emissions. EPA's deferral of reporting of sensitive data elements until 2014 gives reporters plenty of time to install CEMS if they want a long term solution to their CBI concerns.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6. Although EPA regrets any inconvenience to States that may result from this final action, we note that the deferred reporting of inputs to emission equations under EPA's Greenhouse Gas Reporting Program does not affect the ability of States to require facilities to report these data elements.

Commenter Name: Mandy Warner
Commenter Affiliation: Environmental Defense Fund
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 26

Comment: If the Agency determines that the mandatory disclosure of any such data elements does result in competitive harm, EPA may provide facilities with alternative means to calculate emissions and to demonstrate compliance. Any such alternative compliance pathways must result in data that are at least as comprehensive and accurate as the data obtained under the procedures EPA has already finalized. One potential solution would be to allow facilities to rely instead on continuous emission monitors (CEMS) to measure emissions. The Agency has indicated that many commenters support this course of action, and if EPA is concerned that competitive harm may result from the mandatory disclosure of "inputs to emissions equations," EDF encourages the Agency to rely on CEMS as an alternative to ensure that emissions data is fully disclosed.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 17A

Comment: EPA has already defined much of the universe of reporting options for a given sector.

This would be the tier-based system we're familiar with in the rule. There are not entirely new emissions equations out there that will entirely avoid sensitive information – even if EPA looks for them for the next three years although there may be a few small tweaks which we think could be made more quickly. If a polluter does not like reporting using equations, its solution is obvious, and requires no delays or changes to the rule. It should install direct measurement technology instead and solve its problems itself.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0015.1
Comment Excerpt Number: 27A

Comment: In some cases (e.g. California, Alberta, Ontario), such data is verified by a third party entity, bound by confidentiality provisions of the reporting rules and/or the contract with the reporting facility. In all cases, the protected data is available for review by the regulatory authority on an "as requested" basis – with confidentiality provisions employed.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Paul Noe, Vice President, Public Policy and Robert Glowinski, President
Commenter Affiliation: American Forest & Paper Association (AF&PA) and American Wood Council (AWC)
Document Control Number: EPA-HQ-OAR-2010-0964-0012.1
Comment Excerpt Number: 4

Comment: ***Verification of calculations does not require submission of sensitive data***. EPA claims that the accuracy of emission calculations must be open to scrutiny. AF&PA and AWC members certainly agree that the Agency and state environmental agencies have an obligation to ensure the accuracy of greenhouse gas emission data provided pursuant to the Reporting Rule. We disagree, however, that public disclosure of sensitive business information is necessary to

meet that obligation. As is the case with many other environmental regulations that EPA is charged with enforcing, the Agency has full authority to audit data at regulated facilities and may do so by requesting specific information from individual facilities, visiting the facility to inspect records, or taking other actions to ensure compliance with the law.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 8

Comment: Rather, if EPA wishes this data be inspected for purposes of verifying the GHG emissions reported under the GHGRP, it could be done on a case-by-case basis, in a manner that would not jeopardize the confidentiality of the data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Robert D. Bessette, President
Commenter Affiliation: Council of Industrial Boiler Owners (CIBO)
Document Control Number: EPA-HQ-OAR-2010-0964-0014.1
Comment Excerpt Number: 1

Comment: Any necessary reviews to verify the accuracy of the emissions reported should be conducted by the appropriate authorities that have regulatory oversight over the MRR.
Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Angus E. Crane, Executive Vice President, General Counsel
Commenter Affiliation: North American Insulation Manufacturers Association (NAIMA)
Document Control Number: EPA-HQ-OAR-2010-0929-0033.1
Comment Excerpt Number: 3A

Comment: [T]he Agency should require facilities to report their emissions, but the quantity of raw materials and their related mineral mass fractions and other sensitive data should not be reported. The questionable relevance of the information does not justify the gravity of the risks.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific[60]
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 29

Comment: [V]oluntary GHG inventory programs—such as the Department of Energy's Voluntary Reporting of Greenhouse Gases Program, authorized by Section 1605(b) of the Energy Policy Act of 1992, The Climate Registry, and the California Climate Action Registry—do not require reporting facilities to disclose the details behind their GHG emissions data. Very limited information beyond the emissions results, are made available to the public. The detailed information is, however, subject to third party verification, and it is the verification process that provides confidence in the information.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Karin Ritter, Manager, Regulatory and Scientific
Commenter Affiliation: American Petroleum Institute (API) et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0019.1
Comment Excerpt Number: 7

Comment: [T]he Associations emphasize that reporters should not have to submit inputs to equations to the Agency at all. Rather, if EPA wishes this data be inspected for purposes of verifying the GHG emissions reported under the GHGRP, it could be done on a case-by-case basis, in a manner that would not jeopardize the confidentiality of the data.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: G. Graham
Commenter Affiliation: Private Citizen
Document Control Number: EPA-HQ-OAR-2010-0929-0016
Comment Excerpt Number: 2

Comment: If polluters do not wish to use emissions equations, they should not get special treatment. Instead, they should simply be required to directly measure their emissions, as the reporting rule already allows.

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[60] This comment is incorporated by reference in EPA-HQ-OAR-2009-0924-0066.1, which was included as Attachment 1 to EPA-HQ-OAR-2010-0929-0019.1. Comment also included in EPA-HQ-OAR-2010-0929-0024.1 and EPA-HQ-OAR-2010-0964 0023.1.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Kevin M. Dempsey, Vice President, Public Policy and General Counsel
Commenter Affiliation: American Iron and Steel Institute (AISI)
Document Control Number: EPA-HQ-OAR-2010-0964-0035.1
Comment Excerpt Number: 5

Comment: Given the serious business implications of publicly disclosing that subsidiary information, it is far more appropriate for companies to simply maintain records of the measurements, assumptions, engineering estimates, and calculations that are used to develop GHG emissions. Regulated entities can then make those records available to EPA inspectors if and when they are asked to verify reported emissions. This is the approach taken under the Toxic Release Inventory rules and is fully adequate assure that the reported GHG emissions data are sound.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Lorraine Krupa Gershman, Director
Commenter Affiliation: American Chemistry Council (ACC)
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 28

Comment: EPA should follow the model established in other reporting systems when determining what information should be publicly available.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Leslie Sue Ritts, Counsel
Commenter Affiliation: National Environmental Development Association's Clean Air Project (NEDA/CAP)
Document Control Number: EPA-HQ-OAR-2010-0964-0017.1
Comment Excerpt Number: 10

Comment: NEDA/CAP questions (again) the need to EPA to have the data on which GHG emissions calculations are based either for verifying GHG calculations or for future regulation of industry sectors.

Companies have been reporting “releases” into the environment of toxic substances that are shared with federal, state and local emergency, environmental and workplace agencies, as well as hospitals, fire departments and first-responders for many years under the Emergency Planning &

Community Right to Know Act of 1986 or "EPCRA", 4 U.S.C.A. §§11001-11050. Pursuant to EPCRA, facilities are subject to reporting requirements if listed toxic substances are present at a facility exceed the threshold planning quantity for such substances. Releases are based on a variety of calculation methods, without submission of back-up calculations or inputs electronically. The Agency has used a variety of enforcement mechanisms including simple comparison of similar SIC code reporters to identify potential misreporting. We respectfully suggest that this model for reporting substances that have immediate threats to humans and the environment should be studied by the Climate Office because it has provided an ample basis for prioritizing regulation of industries under all of the EPA statutes.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Jay M. Dietrich, CEA Program Manager: Climate Stewardship, Senior Technical Staff Member
Commenter Affiliation: IBM
Document Control Number: EPA-HQ-OAR-2010-0964-0025.1
Comment Excerpt Number: 4

Comment: The alternative use tracking and GHG emissions estimation methodologies presented in the SIA response to this request for information and referenced in section 3 below would address the industry's concerns about costs and technical infeasibility and also eliminate or minimize the CBI concerns associated with the MRR. With regards to the information that would be required to be collected under the proposed alternatives, SIA submitted a set of comments to EPA on September 27, 2010 [Footnote: Proposed Confidentiality Determinations for Data Required Under the Mandatory Greenhouse Gas Reporting Rule and Proposed Amendment to Special Rules Governing Certain Information Obtained Under the Clean Air Act; Proposed Rule 75 FED. REG. 39094 (JUL. 7, 2010) EPA Docket ID NO. EPA-HQ-OAR-2009-0924] regarding confidential business information concerns with the re-proposed rule which are relevant to the CBI concerns associated with the alternative methods proposed by SIA. Even higher level process data, such as proposed in the 4 etch process categorization in the re-proposed 40 CFR 98 and in the "Etch Emissions Factor Method" proposed in the SIA CBI information, have business confidentiality concerns that are not well addressed by the proposed CBI protections.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Arline M. Seeger, Executive Director
Commenter Affiliation: National Lime Association (NLA)
Document Control Number: EPA-HQ-OAR-2010-0964-0020.1
Comment Excerpt Number: 11

Comment: EPA needs to determine what lime plants will ultimately have to do with the inputs data they collect between 2011 and 2014. Because public release of inputs data, even after a delay of two or three years, would still provide competitors with highly damaging information, we believe this information should not be made publicly available. EPA could conclude that a lime plant's data collected from 2011 to 2014 does not have to be reported to EPA as long as the plant agrees to use a third-party verification mechanism by March 31, 2014. To be most successful, the third-party verification mechanism would have to be commercially available (and not require a government agency's participation). Further, for NLA's small business members, such a third-party verification mechanism would also need to be relatively affordable. [Additionally, EPA could determine that a plant's deferred inputs data does not have to be reported to EPA if the plant elects to install a CO2 Continuous Emissions Monitoring System (CEMS) by March 31, 2014.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

Commenter Name: Ray Niemiec
Commenter Affiliation: Texas Instruments Incorporated (TI)
Document Control Number: EPA-HQ-OAR-2010-0964-0018.2
Comment Excerpt Number: 9

Comment: TI believes that, for the semiconductor industry, several unique circumstances would warrant EPA's reconsideration of a CBI determination under the case-by-case approach set forth in 40 CFR § 2.301, which incorporates, with some modification, 40 CFR §§ 2.201 – 2.209.

For example [. . .], a case-by-case confidentiality determination should be made by EPA each time CBI that could be considered "inputs to emission equations" is submitted under the MRR. As discussed above, all inputs to emission equations are either CBI standing alone, or would allow competitors to derive CBI using non-CBI emission equation inputs and actual GHG emissions reported. This is true for the semiconductor industry and TI specifically, but TI believes that this would also be true for several other industries where process and raw material data are key proprietary information, which if released publicly, would constitute the release of trade secret information that would be likely to substantially harm the competitive positions of the businesses that must report such information under the MRR. […]

Accordingly, while TI appreciates EPA's efforts to make categorical front-end determinations regarding whether MRR-reported data is CBI or not for efficiency purposes, there can be no "one-size-fits-all" approach to making confidentiality determinations for the 40+ industrial sectors subject to the MRR. Certainly not with respect to the semiconductor industry, where process changes and new products involving trade secret "recipe" changes, changes in yields, and pricing models are frequent and key to fostering innovation. Certain CBI is required to be reported under the MRR, and making such information public would likely lead to substantial competitive harm to TI.

As discussed above, TI's competitors would be extremely interested in obtaining TI's process technology information to increase their market share to the detriment of TI, and process technology information is so valuable in the semiconductor industry that companies have engaged in industrial espionage to obtain such information. Under the MRR, a substantial amount of trade secret CBI, particularly inputs to emission equations, are proposed to be made public by EPA. TI strongly believes that such information should not be considered "emission data" and not be made public in order to avoid the substantial likelihood of harm to TI's competitive position.

Again, TI is focused not on all five proposed "emission data" categories in the Proposed CBI Rule, but rather only the "inputs to emission equations" category. It is this one proposed category that, because of the language in section 114(c), would automatically be precluded from confidentiality protections if deemed by EPA to be "emissions data." And, because data in that category is CBI as described above, it needs the added protection of the case-by-case process to determine confidentiality[.]

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0011.1, excerpt 6.

31.0 OTHER COMMENTS

Commenter Name: C. A. U. Sigurdson
Commenter Affiliation: Private Citizen
Document Control Number: EPA-HQ-OAR-2010-0929-0013.1
Comment Excerpt Number: 1

Comment: I understand the rule as designed to protect competitiveness of American businesses in the international market and perhaps to protect stock market values that may be affected by reporting data. I am somewhat swayed by the argument that we ought to protect trade secrets that may be betrayed by reporting specific input information, but I have little sympathy for concerns that releasing greenhouse gas emission inputs would affect stock values. If there is a correlation between reporting high emissions and lower stock value, it is a good thing. I support any accountability that gets us closer to reducing greenhouse gas emissions and that encourages companies to act sustainability and to include their impacts on the environment in their costs of doing business. Businesses ought to be accountable to their customers and investors. I appreciate the EPA's goal to balance sensitivity to industry needs for privacy with the need for transparency in emissions reporting. Only transparency allows us to better understand the sources of greenhouse gas emissions so that we may reduce them. Please consider this comment as weighing in on the side of transparency. Citizens like me want you to prioritize the prevention of climate change. We will thank you for standing firm in protecting our safety and the environment. Experts have urged the U.S. to reduce our emissions 70-80% by 2050* in order to prevent catastrophic climate change. Every minute counts.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 18

Comment: Deferring reporting of emissions equations raises substantial verification concerns. Without underlying emissions equation data, it will be very difficult to verify whether emissions have been reported correctly, or also importantly, how to fix problems even if they are identified. EPA has recognized this problem in its proposed rule, and suggested that it might step-up site visits to compensate, but this solution is not particularly comforting.

Initially to our knowledge, EPA enforcement staff and funding had originally intended to conduct only limited site visits, essentially spot checks. If EPA now tends to expand this program, it will need to show that it has the resources to visit all, or a very substantial fraction, of deferred reporters. Initially, I'd note it's not at all clear that industry really wants that level of industry site visits either which seems like the natural alternative if they aren't happy with the current system. But even supposing EPA can essentially visit all sites regularly and annually, it's not at all clear that EPA can meaningfully conduct the verifications it would have to do without creating public records of precisely the information which it's trying to avoid collecting in the first place by deferring reporting of recording data. Perhaps there is some way for reporters not actually to have to write down what they verify or to share it with EPA to determine systems and problems in reporting. That could be done, but it's essentially a system of blinded inspectors. It's unlikely to produce meaningful verification data or useful accuracy so there's not a lot of point in doing it although I supposed it's better than nothing if we have to settle for it.

So, [inaudible] EPA is trying to avoid a Congressional determination that it needs to report all this data to the public. You can't very well avoid it by spending extra resources and saying they have to look at the data themselves. It will just be a hassle and runs into the same legal problems EPA is wrestling with.

Response: EPA thanks the commenter for their input. For the responses to this comment, please see the response to EPA-HQ-OAR-2010-0929-0021.1, excerpt 1 and EPA-HQ-OAR-2010-0929-0029.1, excerpt 11.

Commenter Name: William C. Herz, Vice President, Scientific Programs
Commenter Affiliation: The Fertilizer Institute (TFI)
Document Control Number: EPA-HQ-OAR-2010-0964-0011.1
Comment Excerpt Number: 2

Comment: EPA states that many commenters on the July 7, 2010 EPA CBI Rulemaking stated that they would have installed continuous emissions monitors (CEMS) or otherwise changed their compliance approach if they would have known that EPA would not afford confidentiality protection to inputs to emissions equations. 75 Fed. Reg. at 81,354; 75 Fed. Reg. at 81,367. TFI

was one such commenter. In its September 7, 2010 comments on the EPA CBI Rulemaking, TFI stated that EPA's conclusion that all inputs to emission equations are emission data prejudices those that are relying on equations in lieu of CEMS to provide data responsive to the Mandatory Greenhouse Gas Reporting Rule. In fact, EPA recognized this result in the preamble to the proposal: Many subparts allow facilities to choose between using CEMS and using source category specific GHG calculation procedures. This action proposes that for direct emitting facilities, inputs to emissions calculation equations are "emissions data" and would be released. However, if a facility chooses to use a CEMS to determine CO_2 emissions from a particular process, then emissions are directly measured, and the facility would have no reported data elements that are inputs to CO_2 emissions equations. 75 Fed. Reg. at 39,109. Continuing on, and relevant to TFI's members in the ammonia manufacturing source category (Subpart G), EPA correctly noted: For example, all ammonia production facilities must report the amount of feedstock used; however, under the proposed determinations, this data would be treated as confidential only for facilities using CEMS. For facilities that do not use CEMS, the feedstock data would not be eligible for confidential treatment since it is used as inputs to the mass balance equations provided in 40 CFR part 98, subpart G and would be considered "emissions data." *Id.* This is truly an arbitrary result. EPA's Mandatory Greenhouse Gas Reporting Rule allows sources in the ammonia manufacturing source category to use either CEMS or equations; however, use of CEMS result in the reported feedstock amount being held as confidential by EPA, yet a similar source not having CEMS and relying on equations is afforded no similar protection from disclosure for this reported amount. Taking this arbitrary result a step further, a source may have a CEMS on one ammonia manufacturing line and the reported feedstock amount will be held as confidential by EPA, yet the same source may not have such a system on another ammonia manufacturing line and the reported feedstock amount will not be withheld from disclosure solely because an equation is used to calculate the emissions. The end result of this is that EPA is prejudicing sources that do not have CEMS already installed on their equipment because the data collection is occurring in 2010 and sources did not become aware of EPA's position regarding what constitutes emission data until July 7, 2010 with the publication of EPA's GHG CBI Rulemaking. It is impossible for a source wanting to avoid public disclosure of its feedstock amount or other variables to install a CEMS in 2010 to avoid disclosure of such variables. Beyond 2010, even if a source is able to install a CEMS, it still does not make sense for EPA to place those deciding not to install such units at a competitive disadvantage by requiring disclosure of sensitive data elements.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1.

Commenter Name: Kevin M. Dempsey, Vice President, Public Policy and General Counsel
Commenter Affiliation: American Iron and Steel Institute (AISI)
Document Control Number: EPA-HQ-OAR-2010-0964-0035.1
Comment Excerpt Number: 5

Comment: Since the Reporting Rule has already been effective for more than eight months, sources have already committed to particular reporting approaches for 2010. They cannot change that decision to retrospectively eliminate the CBI concerns that the Proposed Rule would create.

AISI, its members, and many others highlighted the CBI concerns presented by the GHG Reporting Rule and urged resolution of those concerns before Part 98 was finalized. They should not be penalized due to the agency's decision to defer resolution of those issues until well after implementation of the Reporting Rule was underway.

Response: EPA thanks the commenter for their input. For the response to this comment, please see the response to EPA-HQ-OAR-2010-0964-0011.1, excerpt 1. See also Section III of the preamble to the proposed deferral (75 FR 81354) noting EPA's review of these concerns.

Commenter Name: Frederick T. Harnack, General Manager, Environmental Affairs
Commenter Affiliation: United States Steel Corporation (USS)
Document Control Number: EPA-HQ-OAR-2010-0964-0039
Comment Excerpt Number: 5

Comment: Providing the necessary degree of specificity to prove that these [data elements] should be protected information in the public forum, will defeat our intention to protect this data as confidential business information.

Response: EPA disagrees with this comment. Both the proposed deferral (75 FR 81350) and the Call for Information (75 FR 81366) contain instructions for submitting a public comment containing information that the commenter considers to be CBI and indicate that such information will not be made available in the public dockets for these notices.

Commenter Name: David Thornton, Minnesota, Co-Chair and James Hodina, Cedar Rapids, Iowa, Co-Chair
Commenter Affiliation: National Association of Clean Air Agencies (NACAA)
Document Control Number: EPA-HQ-OAR-2010-0929-0032.1
Comment Excerpt Number: 2

Comment: If a data element is not emissions data, the burden is on the source to demonstrate that the data element is CBI and may be properly withheld under section 114.

Response: EPA thanks the commenter for their input. Concurrent with the December 27, 2010 deferral proposal, EPA issued a call for information (75 FR 81366) to collect additional information to assist EPA with the evaluation of the data elements being deferred. The call for information did not place a burden on any party in particular but requested public comment on whether each data element used as an input to an emission equation for direct emitters was likely to cause substantial competitive harm if made publicly available; whether and where it was already publicly available; and, if public availability of a given input was likely to cause substantial competitive harm, suggestions of alternate calculation methodologies and/or verification approaches. EPA appreciates responses to the call for information from all commenters.

Commenter Name: Arthur N. Marin, Executive Director
Commenter Affiliation: Northeast States for Coordinated Air Use Management (NESCAUM)
Document Control Number: EPA-HQ-OAR-2010-0929-0017.1
Comment Excerpt Number: 4

Comment: We emphasize that the burden should be placed on the reporting entity to demonstrate that data inputs are confidential, not reported to any other public agency, and deserving of alternative calculation methodology. States should not be asked to demonstrate that information claimed to be confidential is already publicly available.

Response: EPA thanks the commenter for their input. Concurrent with the December 27, 2010 deferral proposal, EPA issued a call for information (75 FR 81366) to collect additional information to assist EPA with the evaluation of the data elements being deferred. The call for information did not place a burden on any party in particular but requested public comment on whether each data element used as an input to an emission equation for direct emitters was likely to cause substantial competitive harm if made publicly available; whether and where it was already publicly available; and, if public availability of a given input was likely to cause substantial competitive harm, suggestions of alternate calculation methodologies and/or verification approaches. EPA appreciates responses to the call for information from all commenters.

Commenter Name: Burl Ackerman, Environmental Engineering Manager
Commenter Affiliation: J. R. Simplot Company
Document Control Number: EPA-HQ-OAR-2010-0929-0028.1
Comment Excerpt Number: 5

Comment: Simplot recommends the following inputs be considered confidential business information.

Subpart JJ — Manure Management

98.366(a)(3)

98.366(a)(4)

98.366(a)(5)

98.366(a)(6)

Response: EPA is not implementing 40 CFR part 98, subpart JJ due to a Congressional restriction prohibiting the expenditure of funds for this purpose. As a result, 40 CFR part 98, subpart JJ is not within the scope of the deferral.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.

Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 42

Comment: During the deferral, EPA cannot rely only upon its own, ineffective, verification system, which cannot operate properly without emission equation inputs. Instead, it should require deferred operators to contract with third-party verifiers to check their data. Although developing this verification system is a significant task, EPA cannot responsibly leave emissions reports from key sectors effectively unverified for years. Resources are available: To establish the system, EPA can draw upon an extensive network of third-party verifiers already trained and accredited for CARB's and other state and private registries. Even allowing for resource challenges, EPA should be able to put third-party verification in place by the second year of its proposed deferral. If it cannot, the deferral should not continue. Using these verifiers at least during any deferral is far superior to having no verification process at all and EPA cannot justify a deferral without appropriate verification in place.

Response: For the response to this comment, please see the response to EPA-HQ-OAR-2010-0929-0029.1, excerpt 11.

Commenter Name: Craig Segall
Commenter Affiliation: Sierra Club
Document Control Number: EPA-HQ-OAR-2010-0964-0006
Comment Excerpt Number: 21

Comment: If reporters are granted any deferral, EPA should very strongly consider requiring them to use third-party verification services for the duration of the delay. I'm aware that's a significant change in EPA's system, but to the extent that no one's seen that verification data, and EPA's only doing spot-checks, someone needs to be doing thorough reviews. And there enough third-party verifiers around from other reporting systems, we think, to make that a manageable change especially in your two or three-year delay if it stretches on that long.

Response: For the reasons specified in the response to comment EPA-HQ-OAR-2010-0929-0029.1, excerpt 11, EPA disagrees with the commenter that third party verification is necessary during the deferral period.

Commenter Name: Sierra Club et al.
Commenter Affiliation: Sierra Club et al.
Document Control Number: EPA-HQ-OAR-2010-0929-0029.1
Comment Excerpt Number: 11

Comment: [The proposed deferral] has major negative substantive consequences for EPA's reporting system. Without emissions inputs, EPA cannot reliably verify greenhouse gas emissions figures. That failure imperils the data quality of the rule as a whole.

The reporting system is complex, and implementing it will be a novel experience for many reporters. It is highly likely that many reporters will make errors in their emissions reports, and these errors may substantially skew the emissions figures which they finally report to EPA. In our earlier comments on the rule, we documented many incidents where emissions equation estimates were 25% or more off from the correct figures [see comment letter Ex. 6 (and referenced attachments) at 17-29].We incorporate those comments, and their attachments, by reference here. As those comments discuss, such flaws seriously undermined the European Union's greenhouse gas control system [see comment letter Ex. 6 at 27-28], and have the potential to undercut EPA's emissions control efforts as well. If EPA is unable to determine how reporters calculated their emissions, it will be unable to effectively detect errors, under-reporting, fraud, bias, and inaccuracies in its methodologies, and so will be unable to effectively improve the reporting system.

EPA has provided no evidence that its verification system can effectively accommodate the proposed deferral. Instead, EPA's deferral takes away an essential check in the system at the very point in time when it most matters – as industry is starting to collect data that should be used to develop the critical level of baseline greenhouse gas emissions for each facility. Failing to verify these data from the beginning threatens to cause severe delay in creating a functional reporting system that the public, and industry itself, can rely on as an accurate starting point for greenhouse gas policies.

The threat is even more pressing because, despite critical comments from states, regulators, and public interest groups [see comment letter Ex. 6 at 50-57 for example] expressing serious concern that EPA would be unable to adequately verify emissions information without employing third-party verifiers, EPA opted to verify data itself. EPA has not since clearly described its verification system, but the preamble to the final reporting rule outlines a system largely dependent on computerized reviews of data elements:

In implementing the emissions verification under this rule, EPA envisions a two step process. First, we will conduct an initial centralized review of the data which will be largely automated. EPA intends to build into the data system an electronic data QA program for use by reporters and EPA to help assure the completeness and accuracy of data. In addition, to verify reported data and ensure consistency, EPA may review facility-level monitoring plans and procedures, and will perform detailed, automated checks on data utilizing recent and historical data submittals, comparison against like facilities and/or other electronic audit tools where appropriate. Second, EPA intends to follow-up with facilities should potential errors, discrepancies, or questions arise through the review of reported data and conduct on-site audits of selected facilities. The on-site audits may be conducted by private verifiers contracted by EPA or by Federal, State or local personnel, as appropriate. We plan to coordinate closely with the States to develop an efficient approach toward on-site auditing that can meet the needs of multiple programs. We do not anticipate conducting on-site audits of every facility every year.

74 Fed. Reg. at 56,282. EPA's program, in other words, relies upon statistical analyses of all reported data elements to spot and diagnosis problems, and adds only limited on-site visits, very likely due to limited EPA resources for a comprehensive site-specific inspection program.

Whether or not this program would have worked with emission equation input reporting, it certainly will not function properly with the deferral. Emissions equation inputs are not just prerequisites to emissions figures; they are the only empirical data on emissions which EPA receives from facilities using equation-based reporting. It is these data points that EPA must analyze to spot errors, fraud, and biases. If it looks only to the final emissions figure, which is the product of many different underlying inputs, EPA will be unable to pinpoint which emission input is being mismeasured (if it can spot a problem at all), and so will not be able to target resources to correct errors. Absent correction, industry will continue reporting flawed data, and the true baseline level of emissions for many facilities may not be correctly calculated, leading to years of delay in accurate reporting and effective policymaking.

EPA's proposed deferral gives these problems unduly short shrift. Although EPA proposes delaying reporting of the core data elements it would have used for verification, it maintains that it will continue to follow its "two-step process." 75 Fed. Reg. at 81,355. EPA suggests that it will solve this problem by temporarily "plac[ing] additional emphasis on the second step of the process, direct follow-up with facilities," id., but this suggestion is not at all compelling for several reasons.

First, direct facility visits are the second step of a process that begins with electronic verification, and EPA will not have the data it needs to conduct this first step. EPA attempts to brush away this objection by pointing out that it will still have some other sorts of information, see id., but it does not succeed. First, EPA states it will know which "calculation methodologies" deferred sources used, but this is not helpful: the "calculation methodology" will tell EPA which equation is being used, but, as EPA will not know the inputs to the equations, it will not do much good. Similarly, EPA may find out which "test methods" were used to measure inputs, but again, knowing how an unknown quantity is measured will not help EPA determine whether the actual measurements are in error. Further, information on whether "missing data procedures were used" is largely useless: it tells EPA that one set of data which it will not see has been replaced by another set of data which it will not see. And, finally, information on "plant and equipment capacity and production rates" might help EPA work out whether given emissions figures are plausible across broad classes of plants, but will not meaningfully help EPA determine whether emissions figures are accurate within a class of facilities, or show how it can correct the problem. EPA has offered no evidence that its computerized detection system will work without equation inputs, or be able to spot all – or even a meaningful handful – of errors.

If anything, EPA raised fresh doubts as to the utility of its computerized system, when it announced that it would delay the initial reporting deadline for all sectors of the rule from March 14, 2011, to summer 2011 in order to work out kinks in the computer program [footnote: see comment letter Ex. 1]. Again, EPA designed this system to verify data using all elements required to be reported under the rule. Even if the system worked well now, it would likely struggle to function during the deferral without the data it was designed to use. Given that the computer program apparently already does not work properly, EPA's expectations that it will work smoothly for verification during the deferral are patently unreasonable.

Second, even supposing that EPA's computerized system can function without the inputs for which it was designed, EPA has not demonstrated that site visits can solve its verification problem, or, especially, translate into rule-wide improvements. EPA has not demonstrated that it

has the resources to visit all – or most -- of the facilities at which it suspects errors have occurred. EPA does not appear to have such resources, particularly in this time of straitened budgets, so its efforts to step up second-step visits are very likely to fail.

Even if EPA somehow did muster the resources, its visits would very likely be ineffective. If EPA verifiers do not collect inputs into emission calculations on site visits, their visits will be fruitless as they will not be able to determine how a site calculated its emissions and correct any errors. Nor will they be able to share common errors with EPA headquarters and other reporters to help correct them generally. But if EPA verifiers do collect such information, then they will have to disclose it, creating the very alleged CBI problems that EPA is attempting to solve with the deferral itself. In sum, EPA's system may even lead to greater industry confusion and unnecessary resources spent at facilities where there is no problem, because of the difficulty EPA will have in figuring where it truly needs to focus its attention, while simultaneously undermining the public's access to the data and the integrity of the program.

EPA will also, notably, be acting contrary to its own verification and data quality guidance. EPA's Data Quality Policy, CIO 2106.0, provides that EPA data provided to external users "must be [of a quality] appropriate for their intended use." Id. at 2. The "intended use" of greenhouse gas reporting data is to provide facility-specific, economy-wide data of sufficiently high quality as to support a broad range of public policies. Unverified or poorly-verified data does not meet this use. EPA, in fact, recognizes as much, stating, in its Guidance on Environmental Quality Data Validation and Verification, EPA QA/G-8 at iii (Nov. 2002),that "[d]ata verification and data validation are important steps in the project life cycle, supporting its ultimate goal of defensible products and decisions."

In its verification guidance, EPA further explains that "the purpose of data verification is to ensure that the records associated with a specific data set actually reflect all of the processes and procedures used to generate them, and to evaluate the completeness, correctness, and compliance of the data set against the applicable needs or specifications," *id.* at 35, and is necessary to produce reliable data. The "first step" in data verification is identifying the "location and source" of all relevant data records, *id.*, followed by a careful record review to catch errors, *id.* at 54-55. Needless to say, EPA cannot conduct such reviews if it cannot review the underlying emission equation records.

As John Bosch, former chief of EPA's own National Air Data Branch explains:

Over the years I have reviewed and checked annual emissions-submittals from tens of thousands of facilities submitting annual emissions to EPA. I quickly learned that the following condition was absolutely essential: it was necessary to have all the actual inputs of throughputs, emission factors, and control efficiencies used in the emission-calculating process. If this information was not supplied alongside the reported emissions values, it was completely impossible for anyone to cross-check for arithmetic mistakes, incorrect throughputs, and improper equipment ranges. Further, if these checks were not done when the emissions were reported, the chance for later corrections of errors was highly unlikely. In fact, even under the ideal condition of having all input parameters immediately available for cross-checking, EPA studies have shown that the calculated emissions using emission factors normally are only 20-30% of the actual measured

emissions. (There are a number of logical reasons for this and all are well-documented in the literature and in EPA reports.)

The build-up of accumulated errors in calculated emission-estimates will inevitably degrade emission inventories, pollution control strategies, regulatory emission limits, and virtually all modeling results. It is thus essential for the regulating agency to simultaneously collect and analyze all emission-calculation input parameters along with the reported emissions value and use them to cross-check the correctness of the submitted numbers. Otherwise, scientific integrity and credibility of the entire regulatory program could be strained and adversely affected [see comment letter Ex. 13 for Mr. Bosch's report and Ex. 14 for his resume].

Notably, all credible emissions reporting systems have likewise concluded that effective verification is necessary to produce valid emissions figures. Our comments on the proposed reporting rule discuss these determinations in detail and the California Air Resources Board ("CARB") usefully summarizes this collective conclusion as follows:

Independent verification of reported GHGs is expected under international standards and is integral to many existing GHG reporting programs, including the California Climate Action Registry's voluntary program. By their nature, calculating and reporting of GHG emissions can be a complex exercise in tracking emissions sources, applying appropriate emission factors and methods, and tracking financial records. Calculation and verification of GHG emissions requires a systematic approach. ARB staff is proposing to use independent third party verification, consistent with CCAR (CCAR 2005) and international standards. International guidance reports developed by the International Organization for Standardization (ISO) and the European Union require third-party verification to address the need for consistency and a high level of confidence in calculating tonnes of GHG emissions.

CARB, Staff Report: Initial Statement of Reasons for Rulemaking; Mandatory Reporting of Greenhouse Gas Emissions (Oct. 19, 2007) at 55. [Footnote: see also CARB, Staff Report: Initial Statement of Reasons for Rulemaking; Revisions to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions at 88 (Oct. 2010), attached as Ex. 16, in which CARB reaffirms its conclusion: The existing GHG reporting regulation contains third-party verification requirements for all reporting entities. Independent verification of reported GHGs is expected under international standards (ISO 2006a) and is integral to many existing GHG reporting programs, including The Climate Registry's voluntary program (TCR 2010) and the European Union Emissions Trading Scheme (EU ETS 2007). The Western Climate Initiative (WCI) also requires all participating jurisdictions to adopt regulations that include third-party verification for a regional cap-and-trade program (WCI ERMR 2009). By their nature, calculating and reporting of GHG emissions can be a complex exercise in tracking emissions sources, applying appropriate emission factors and methods, and tracking financial records. Calculation and verification of GHG emissions requires a systematic approach. International guidance reports developed by the International Organization for Standardization (ISO) (ISO 2006a) lay out best practices that require third-party verification to address the need for consistency and a high level of confidence in calculating and reporting ton of GHG emissions.

CARB's final statement of reasons, adopting the verification system it outlines, is attached as Ex. 17.] EPA has already diverged from internationally accepted best practices by attempting to

verify reporting rule data itself without sufficient resources to do so. Indeed, CARB recently declined to follow EPA's lead, writing:

Staff reviewed the current verification process in the U.S. EPA regulation before proposing that California stay with its existing process of independent, third-party verification. The U.S. EPA regulation contains a verification process that relies on automated routines to screen submitted emissions data reports for inconsistencies and flag data that do not meet certain criteria. Although this process is termed "verification" by U.S. EPA, it is inconsistent with the international standard for verification of GHG emissions data reports. Experience with California's existing regulation has shown that errors are very common in emissions data reports and that third-party verification is important in the submittal of an accurate emissions data report, especially to ensure that all required sources are included in the emissions data report. Having a third-party verifier review each reporting entity's emissions data report ensures a careful and thorough review of all data submitted to ARB. Under the staff proposal, ARB would continue to rely on the international standard of third-party verification to ensure credible and accurate reporting to support the cap-and-trade program. As such, ARB staff has rejected this alternative.

Id. at 133. EPA is traveling even further afield with the deferral, which undermines its earlier unorthodox decision to verify its own figures. CARB highlighted the magnitude of EPA's task when it estimated that using its own staff to conduct verifications just for facilities in California would require"150 dedicated positions would be needed to spend the time required for site visits to examine sources, draw up sampling plans and risk assessments, check emissions calculations, and develop and issue verification reports and opinions." CARB, Staff Report: Initial Statement of Reasons for Rulemaking; Revisions to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions at 132-33 (Oct. 2010). Especially during this time of budget cuts and federal hiring freezes, EPA cannot hope to muster even greater resources to verify all the sources in the national reporting system, especially if it cannot examine emission equation inputs.

If EPA allows the reporting program's verification system to collapse in this way, it will be acting contrary to binding law [Footnote: Even if these serious verification problems were not at issue, deferring reporting on data elements further undermines the rule by making it impossible to determine which aspects of industrial processes are primarily driving emissions sources. One of the virtues of equation-based reporting is that it breaks down industry systems into component parts, and may be useful in determining which of these parts most strongly influence emissions. This information is useful for reporters, and for policymakers and the public, as it allows them to target resources at the most polluting sections of their processes.] EPA was directed to construct an effective data collection system to support policy-making on the nation's most pressing environmental crisis, and to grant data to the public to allow concerned citizens to play a meaningful role in addressing this problem. If that data is unreliable, as it will be for the majority of large stationary sources if the deferral is finalized, EPA will have failed in its duties.

Response: EPA disagrees that the deferral will prevent meaningful data verification. During the deferral period, reporters are required to report all data that are not inputs to emission equations. Data that are required to be reported include actual emissions, calculation methodologies used, specific test methods that were used to determine equation inputs, indications of whether missing data procedures were used, and various operating characteristics such as plant and equipment capacities and production rates. EPA disagrees that these data will

not facilitate meaningful verification. Following are examples of how collecting and analyzing all data other than inputs to emission equations enable EPA to flag potential errors and target facilities for direct follow-up.

- Data related to the calculation methodologies used by reporters will help EPA to determine whether an appropriate methodology was chosen. For example, based on the size of a facility's combustion unit and the type of fuel combusted (information included in this category), EPA will be able to verify whether the appropriate Tier was used for Subpart C. Knowing whether the appropriate Tier was used allows EPA to determine whether the measurement and monitoring methods required for a facility's size and fuel type were used. Use of a lower Tier than is required in Part 98 would lead to emissions being calculated incorrectly.

- Data reporting elements related to missing data usage will allow EPA to verify when a substitute value was used, the total number of hours a missing data procedure was used, and other information that will allow EPA to assess the quality of the reported data. Since missing data procedures are used in lieu of methodologies required by Part 98, this information would help determine the accuracy of the reported emissions. Disproportionate use of missing data procedures could suggest that the required equipment was not installed or that some other problem occurred at the facility that led to measurement or calculation errors. Knowing whether missing data procedures were used disproportionately allows EPA to target facilities for direct follow-up to further investigate possible errors.

- Data reporting elements related to test methods used, such as the frequency at which sampling and analysis is performed and particular methods used for determining carbon content, will allow EPA to assess whether appropriate methods were used to estimate emissions. For example, many of the methods used to calculate carbon content and molecular weight specify particular procedures that must be followed. Reviewing the methods used to determine carbon content and other inputs to equations allows EPA to assess the accuracy of the data reported. Use of an unauthorized method by a facility would lead to incorrect emission calculations.

- Data elements such as number of operating hours, number of operating units at a facility, production rates, capacity, and throughput will allow EPA to make correlations between these data elements and emissions and/or other data elements across all facilities within a source category to identify potential reporting errors.

Once a potential error is identified and flagged, a subject matter expert will conduct direct follow-up which will, in general, consist of both contact with facilities via phone and email as well as on-site audits as appropriate. Direct follow-up with facilities will enable EPA to determine whether reporting errors have occurred and to issue requests for data to be resubmitted when needed. This constitutes EPA's two step process, as described in the preamble to the December 27, 2010 deferral proposal.

EPA agrees that without collecting the inputs to emission equations, it is more difficult to cross-check for arithmetic mistakes, but EPA disagrees with the statement from John Bosch that it is impossible. EPA has determined that it is still possible to conduct verification checks on the reported data. A large arithmetic mistake will likely result in skewed emissions, which EPA's verification system will flag either as outside the expected range or as an outlier when compared to other facilities in the industry. Such a flag will prompt EPA subject matter experts to directly follow up with the facility to learn more about the circumstances on site and to request a resubmission if appropriate. With respect to an incorrect throughput value, EPA notes that such an error can be the result of arithmetic error and in some cases will still be identified where the resulting emissions are outside of the expected range, or can be the result of using an improper measurement method. EPA's verification process will also identify such sources of error by evaluating data collected on measurement methods.

For the direct emitter source categories, EPA recognizes that, during the deferral period, we will receive fewer data upon which to conduct electronic verification. As a result, as described in the deferral proposal, we temporarily will place additional emphasis on direct follow-up with facilities once any potential errors in reported emissions are identified. EPA recognizes that resource limitations may not allow us to conduct an on-site audit at every facility that triggers a verification flag. However, EPA has concluded that such a volume of audits is not necessary to correct all errors because we can rely on direct communication with facilities via phone and email. Lastly, whether inputs to equations would be collected during on site audits would depend on the specific situations and circumstances of a given audit. EPA therefore does not wish to speculate in this response whether and under what circumstances such collection would occur. However, agency record, including information collected during on-site audits, will be treated in accordance with EPA's CBI regulations.

In the preamble to the Final GHG Reporting Rule (74 FR 56260), EPA determined that the two step process is appropriate to verify data. For the reasons explained above and outlined in the preamble to this action, we have concluded that this remains the case and that the verification process continues to assure the quality of the Part 98 data during the deferral period, consistent with EPA's Data Quality Policy. In the evaluation process following the Call for Information (75 FR 81366), we will further evaluate impacts on the verification process and will give consideration to various alternatives and enhancements to the current process.
Lastly, EPA also disagrees with the commenter's assertion that EPA's electronic verification system will not be fully developed and functional in time for verification of data in the fall of 2011. The GHGRP will be processed for verification through a stand-alone software application (separate from e-GGRT) that has been developed and is on track to be used for prompt verification of data. EPA has programmed over 1,400 range, algorithm, statistical, and other tests into this automated software, which will flag potential errors as described in this response. This application does not require inputs to emission equations in order to operate successfully and verify reported data effectively.