SUPPORTING STATEMENT FOR
EPA INFORMATION COLLECTION REQUEST NUMBER 1823.03
"REPORTING AND RECORDKEEPING REQUIREMENTS UNDER THE PERFLUOROCOMPOUND (PFC) REDUCTION/CLIMATE PARTNERSHIP FOR THE SEMICONDUCTOR INDUSTRY"

June 9, 2008

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1. IDENTIFICATION OF THE INFORMATION COLLECTION

1(a) Title and Number of the Information Collection

This Information Collection Request (ICR) is entitled "Reporting and Recordkeeping Requirements under the Perfluorocompound (PFC) Reduction/Climate Partnership for the Semiconductor Industry," EPA ICR number 1823.03. This ICR is a reinstatement of a previously approved ICR.

1(b) Short Characterization

On February 14, 2002, President Bush announced a goal to reduce U.S. greenhouse gas (GHG) emissions intensity – the ratio of emissions to economic output by American industry – by 18 percent over the next 10 years without sacrificing economic growth. Achieving this goal will require a combination of short-, medium-, and long-term actions. Initially, the Administration adopted policies to encourage industry to take voluntary actions using available, cost-effective technologies and best practices to reduce GHG emissions intensity. The U.S. Environmental Protection Agency's (EPA's) PFC Reduction/Climate Partnership for the Semiconductor Industry is an important program contributing to the overall reduction in GHG emissions from projected 2010 levels. The semiconductor industry partnership, along with EPA's Energy Star programs and the Voluntary Aluminum Industrial Partnership (VAIP), are all voluntary initiatives seeking to reduce GHG emissions using a pollution prevention approach.

The PFC Reduction/Climate Partnership for the Semiconductor Industry (referred to as the "PFC Reduction/Climate Partnership" or the "Partnership" for the remainder of this ICR) is a voluntary program that promotes reduction of fluorinated compound (FC)[1] GHG emissions including perfluoromethane (CF_4), perfluoroethane (C_2F_6), sulfur hexafluoride (SF_6), nitrogen trifluoride (NF_3), and perfluoropropane (C_3F_8), from semiconductor manufacturing. A single hydrofluorocarbon, trifluoromethane (CHF_3) is included in the program with the PFCs due to its high global warming potential. EPA's semiconductor industry partners have committed to reduce their PFC emissions 10 percent below their 1995 baseline level and support the President's Climate VISION initiative. As a partner to the industry, EPA serves as a clearinghouse of technical information on successful strategies for reducing PFC emissions that are economically, technically, and environmentally sound. EPA also helps assess the global warming potential of potential substitute chemicals and publicly recognizes the Partner Companies' achievements.

Participation in the program begins with completion of a Memorandum of Understanding (MOU) that outlines responsibilities of the PFC Reduction/Climate Partnership. This MOU reflects a voluntary agreement between a semiconductor manufacturer (the Partner Company) and EPA (collectively, the Parties). By joining the Partnership, a Company agrees to submit a Company-specific annual report, identifying an overall estimate of PFC emissions by gas, to a

1 FCs are the most potent greenhouse gases known. In comparison to an equivalent amount of the common greenhouse gas carbon dioxide, PFCs are 6,000 - 24,000 times more potent. Also, the atmospheric lifetimes of the PFCs range from 2,600 to 50,000 years.

third party designated by the participating Companies. The MOU also specifies that the Partner Company will direct the designated third party to create a confidential data depository for the information supplied by the Partner Company. In addition, the MOU states that the Partner Company will direct the designated third party to prepare a U.S. Partnership Annual Report, to be submitted to EPA, that aggregates PFC emissions estimates, and provides each Partner Company's annual emissions by gas on a "blind" or anonymous basis. The Partner Company also agrees that it will share with EPA and others in the semiconductor industry information about successful PFC emission reduction processes and technologies that the Partner Company considers non-confidential. This agreement applies only to PFC emissions originating from U.S. semiconductor manufacturing sites and can be terminated by either Party 30 days after the receipt of written notice by the other Party with no penalties or continuing obligations.

This ICR explains the information collection under the PFC Reduction/Climate Partnership. Sections 1 through 5 of the ICR describe the information collection requirements (e.g., in regard to need and use of the information collected). Section 6 estimates the annual burden and cost to the respondents and the Agency under these requirements.

2. NEED FOR AND USE OF THE INFORMATION COLLECTION

2(a) Need and Authority for the Collection

President Bush launched the Climate VISION initiative in February 2003 as part of his plan to reduce the national GHG emissions intensity (the amount of GHGs emitted per dollar of Gross Domestic Product [GDP]) by 18 percent over 10 years. EPA's semiconductor industry partners are contributing to the Climate VISION's efforts to reduce U.S. GHG emissions by striving to reduce their absolute PFC emissions 10 percent below their 1995 baseline level (see www.climatevision.gov/sectors/semiconductors). The PFC Reduction/Climate Partnership also supports EPA's pollution prevention goals. Authority for collection of this information is provided in Sections 7403(a)(1), (b)(6), and (g)(1) [Clean Air Act '103]. Additionally, the PFC Reduction/Climate Partnership is inline with the EPA's 2006-2011 Strategic Plan, which identifies "clean air and global climate change" as one of the five Strategic Plan Goals, and reductions in GHG emissions as one of the objectives under this Goal.

EPA has developed this ICR to obtain authorization to collect information from Companies participating in the PFC Reduction/Climate Partnership. By participating in the program, a Partner Company voluntarily agrees to the terms of various information collections specified by EPA in the Memorandum of Understanding (MOU). The Partner Company submits the MOU to EPA. In addition, the Partner Company should submit to a designated third party a Company-specific annual report that includes an overall estimate of the Partner Company's PFC emissions by gas type.

An industry-designated third party aggregates information on Company-specific PFC emissions into a U.S. Partnership Annual Report, combined with information on Partner Companies' PFC emissions by gas (submitted on a blind basis). Using the information provided through the Partnership the EPA is able to (1) evaluate the overall PFC emission reductions

achieved by Partner Companies, (2) develop estimates for the total U.S. semiconductor emissions, (3) identify new technologies or processes that reduce PFC emissions, and (4) serve as a technical clearing-house to provide industry with pertinent information on emissions estimation and reduction strategies. The Partnership data is a valuable resource for evaluating current and promoting future GHG emissions reductions within the semiconductor industry.

2(b) Practical Utility and Users of the Data

The Agency has used the MOU to establish a framework for a voluntary agreement with Companies in the Partnership. EPA will use information submitted in the U.S. Partnership Annual Report to demonstrate that Partner Companies are reducing PFC emissions from semiconductor manufacturing operations, which is important not only to assess whether Partners are on track towards meeting their 2010 emissions reduction goal, but also to evaluate reductions in emissions intensity by Partners as part of President Bush's Climate VISION initiative. In addition, EPA will use the information collected to evaluate the quantity of emissions prevented and to publicize Company and Partnership successes. EPA will also use the information on an annual basis to develop the Inventory of U.S. Greenhouse Gas Emissions and Sinks. The U.S. Government is committed to developing and maintaining the Inventory under the United Nations Framework Convention on Climate Change (UNFCCC).

The MOU's information-sharing provision allows EPA to collect and share information about successful PFC emission reduction processes and technologies that Partner Companies consider non-confidential. Additionally, EPA's review of the annual Partnership reports on a "blind"-basis and discussions with Partner companies, allows EPA to assess the need for information and to provide pertinent technical information to assist Partner-Companies in achieving greater reductions. It is expected that the industry will use the information gathered through the Partnership to understand the extent and rate of growth of its PFC emissions in the U.S., and to continue to reduce their PFC emissions and improve their environmental performance.

2(c) Assessment of Partnership's Achievements

In 2001, the Office of Management and Budget (OMB) requested EPA to evaluate the extent to which the Partner Companies would have reduced their PFC emissions in the absence of the Partnership. EPA constructed a top-down vintage model to better understand the industry's diverse and dynamic manufacturing technologies and estimate the U.S. industry's "business as usual" (BAU) PFC emissions.

When estimating air emissions from any source, it is customary practice to express the emissions as a product of two factors: an emissions factor, expressed as emissions per unit of activity and an activity factor, expressed in this case as a the total manufactured layer area (TMLA) of silicon during semiconductor manufacture.[2] EPA's PFC Emissions Vintage Model

2 The TMLA includes both the area of the silicon wafer and the area of the layers above the wafer, which

(PEVM) PFC emissions factor represents the average emission factor from four historical Partnership years (i.e., 1996 to 1999). The emission factor does not reflect any emission reduction measures, as Partners are not believed to have applied significant reduction measures before 2000. To estimate U.S. BAU emissions the PEVM emission factor is multiplied by U.S. TMLA. U.S. TMLA is derived from (1) reports and projections of World silicon consumption provided by VLSI Research Inc., (2) the share of U.S. TMLA derived from the World Fab Watch database, and (3) the number of interconnect layers by linewidth technology and device type (i.e., discrete, memory or logic) as provided in the International Technology Roadmap for Semiconductors.[3,4,5]

Figure 1 near the end of this document depicts the Partners' actual PFC emissions through 2006, as compared to expected BAU emissions. A full description of EPA's PEVM used to estimate BAU emissions is available at: http://www.epa.gov/semiconductor-pfc/documents/pevm_draft.pdf.[6]

The Partner Companies have identified and are adopting several other new manufacturing technologies and process improvements aimed at significantly improving their environmental performance. In response to EPA's voluntary initiative, the Partner Companies and their material suppliers have developed new production technologies including:

- remote NF_3 plasma cleaning for chemical vapor deposition (CVD) chambers,
- process optimizations,
- alternative chemicals, and
- advanced PFC emissions abatement devices.

Remote NF_3 chamber cleaning reduces PFC emissions by greater than 98 percent as compared to the traditional C_2F_6 cleaning process. The adoption of NF_3 Remote Clean and in-situ NF_3 technologies—both alternatives to the traditional C_2F_6 cleaning process—account for approximately two-thirds of the total emission reduction since 2000. These technologies are now available for all new 200- and 300-mm wafer PECVD (plasma enhanced chemical vapor deposition) equipment sold in the U.S. and is being retrofitted to existing equipment by some Partner Companies.

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are used to interconnect the circuit elements of an integrated circuit (IC). TMLA is obtained by multiplying the silicon wafer area by the total number of layers.

3 VLSI Research, Inc. (2007) Document 327028, V6.12.1—Worldwide Silicon Demand by Wafer Size, by Linewidth and by Device Type. January 2007. Available online at <http://www.vlsiresearch.com>.

4 Semiconductor Equipment and Materials Industry (2007) *World Fab Watch*, *January 2006 Edition*.

5 ITRS (2007) *International Technology Roadmap for Semiconductors: 2006 Update*. January 2007. This and earlier editions and updates are available at <http://public.itrs.net.>

6 The distinction between copper and no-copper interconnects is not used in the latest version of PEVM because the industry has fully incorporated the use of copper during IC manufacture, which is reflected in the ITRS (cf. ITRS, 2007). Incorporating copper-interconnect technology has the effect of lowering the BAU baseline emissions, for which credit is not taken because its adoption was prompted by IC performance not the reduction of PFC emissions.

In addition, Partner Companies have revisited their established manufacturing processes and successfully adjusted their production process "recipes" (i.e., parameters such as the PFC gas flow rates, plasma power, and pressure) to reduce PFC use. The Partners also have improved the equipment's ability to detect the process endpoint and thus ensure PFC gas flow delivery only when necessary. These types of process optimizations have reduced PFC emissions and in some cases improved manufacturing productivity.

EPA's PFC Reduction/Climate Partnership, through its aggressive PFC emission reduction goal, has sent a clear message to the industry's equipment and chemical suppliers. The industry's suppliers are responding by evaluating and designing new manufacturing technologies with zero (when feasible) or much reduced carbon footprints. These new designs include new chemicals with zero or lower global warming impacts, point-of-use capture and recycle technology, and improved abatement devices that can neutralize PFC emissions before being exhausted to the atmosphere. For example, prior to the Partnership, the industry's abatement devices were designed to control regulated criteria pollutants but these devices would not destroy the very stable and non-reactive PFC gases. Today, equipment suppliers offer a menu of abatement options capable of controlling regulated pollutants and PFC emissions in one device. Partner Companies are choosing to upgrade their abatement systems to address PFC emissions and new fabrication facilities are completely outfitted with the cleaner advanced technologies.

3. NONDUPLICATION, CONSULTATIONS, AND OTHER COLLECTION CRITERIA

3(a) Nonduplication

The information to be obtained under this ICR is not collected by any other EPA program or Federal agency. The PFCs are not currently regulated chemicals, and the emissions of the gases are not tracked elsewhere. No databases are otherwise available for obtaining this information.

3(b) Public Notice Request Prior to ICR Submission to OMB

In compliance with the Paperwork Reduction Act of 1995, EPA issued a public notice in the Federal Register on March 11, 2008 (73 FR 12996). The public comment periods extended through May 12, 2008. EPA received no public comments on this ICR in response to the Federal Register notice.

3(c) Consultations

In the fall of 2000, EPA consulted with eight companies in the PFC Reduction/Climate Partnership to obtain feedback on the burden and costs associated with the Partnership's paperwork activities. EPA tried to ensure that the Partner Companies contacted were representative of Companies across the Partnership. After collecting their feedback, EPA developed an average burden and cost estimate for each respondent activity in this ICR and

incorporated these estimates into the ICR's burden and cost calculations. The Partnership's composition and responsibilities have not changed significantly since 2000. Therefore, EPA has not adjusted the burden estimates for the partnership's activities. EPA has updated the compensation level for the labor categories using U.S. Department of Labor's Bureau of Labor Statistics information. See Section 6 of this ICR for these calculations.

NAME OF CONTACT	NAME OF ORGANIZATION	PHONE NUMBER
Jim Jewett	Intel	(480) 554-3621
Joe Mauser	Philips	(505) 822-7634
Coleen Miller & Tina Gilliland	Texas Instruments	(512) 356-7430
Mishelle Noble	Dominion Semiconductor	(703) 396-1120
Jamie Rubin	Agilent Technologies	(970) 288-4880
David Sovie	Eastman Kodak	(716) 722-9124
Tom Tamayo	International Business Machines	(802) 769-4950
Diane Van Schoten	Advanced Micro Devices	(408) 749-2045

3(d) Effects of Less Frequent Collection

EPA requests that the Partner Company submit information on its PFC emissions to the designated third party once per year. The designated third party will submit a U.S. Partnership Annual Report to EPA once per year. EPA believes that any reduction in the frequency of this information collection would impede efforts by EPA to evaluate results of this program. In particular, if information were submitted less frequently than once per year, emission inventories of GHGs prepared by the Federal Government on an annual basis would suffer because the information used in such inventories would be dated. A less frequent collection would not enable EPA to track annual GHG emission reductions for the Climate VISION initiative or to submit an accurate assessment to the UNFCCC.

3(e) General Guidelines

This ICR adheres to the guidelines stated in the Paperwork Reduction Act of 1995, OMB's implementing regulations, OMB's Information Collection Review Handbook, and other applicable OMB guidance.

3(f) Confidentiality

No confidential information will be submitted to EPA at any point in the information collection process. Information submitted to EPA in the U.S. Partnership Annual Report will be either aggregated or provided on a "blind" basis. Further, data will be released by the designated third party only if a sufficient number of semiconductor companies participate in the Partnership so that aggregated emissions data cannot be correlated back to an individual Partner Company or a small group of Partner Companies. In addition, other information regarding successful PFC reduction strategies shared with EPA by the Partner Companies is non-confidential.

3(g) Sensitive Questions

No questions of a sensitive nature or of matters usually considered private to individuals will be asked.

4. THE RESPONDENTS AND THE INFORMATION REQUESTED

4(a) Respondents and SIC/NAICS Codes

Following is the Standard Industrial Classification (SIC) code and the corresponding North American Industry Classification System (NAICS) code associated with industries most likely to be affected by the information collection requirements covered under this ICR:

Industry Sector	SIC Code	NAICS Code
Semiconductor and Related Device Manufacturing	3674	334413

The above SIC and NAICS codes refer to the industry respondents for the Partnership. These SIC and NAICS codes are applicable because the Partner Companies are semiconductor manufacturing companies.

4(b) Information Requested

Companies participating in the PFC Reduction/Climate Partnership submit a MOU to the EPA. The Partner Companies also agree to submit to the designated third party a Company-specific annual report that provides an overall estimate of PFC emissions by individual gas type. The designated third party will submit to EPA a U.S Partnership Annual Report that provides an aggregated estimate of PFC emissions. EPA may review Company-specific annual reports on the premises of the designated third party, after the third party has removed Company-identifying information. In addition, by signing the MOU, Partner Companies agree to share information about successful PFC emission reduction processes with the EPA and others in the semiconductor industry. Each of these information collections is described separately below, along with the respective data items and respondent activities.

Memorandum of Understanding

A number of Partner Companies worked with EPA to prepare the MOU establishing the terms of participation in the PFC Reduction/Climate Partnership. After reviewing the MOU, each Company must sign and submit it to the Agency. There are currently 21 semiconductor manufacturers representing 80 percent of the U.S. industry participating in the Partnership. All 21 companies have already reviewed and signed MOUs with EPA. EPA is not actively recruiting new partners so the MOU activities and associated burden estimates have been removed from this ICR renewal.

Company-specific Annual Report

The Partner Company agrees that it will prepare a Company-specific annual report to be submitted to the designated third party. It also agrees to report an estimate of PFC emissions by specific gas type (e.g., perfluoromethane (CF_4), perfluoroethane (C_2F_6), sulfur hexafluoride (SF_6), nitrogen trifluoride (NF_3), trifluoromethane (CHF_3), and perfluoropropane (C_3F_8)). The report may also include a written explanation of the methodology used to generate such estimates. The Partner Company must submit its Company-specific annual PFC emissions report to the designated third party by April 15 of each year for the previous year. Because emissions estimates have potential competitive significance, they will be maintained on a Company-specific confidential basis.

(i) Data items

The Company-specific annual report must include the following information:

- The Partner Company name, name of a designated Partner Company representative, contact phone number, and fax number;
- Reporting period;
- Overall estimate of PFC emissions for all U.S. facilities operated by the Partner Company;
- Description of methodology used for calculating PFC emissions estimate. The following is to be included for the methodology elements:

    - Description of how PFC usage was determined;
    - Description of source of emissions factors and how they were applied;
    - Description of how reductions due to abatement or other reduction techniques were accounted for; and
    - An example calculation (optional).

(ii) Respondent activities

- Partner Companies will complete and submit to the designated third party the Company-specific annual report for each calendar year the MOU is in effect (due April 15 of subsequent year).

U.S. Partnership Annual Reports

The designated third party is responsible for maintaining the Company-specific annual reports and compiling them into a U.S. Partnership Annual Report . The designated third party will create a confidential data depository containing the annual reports supplied by the Partner Companies. The designated third party will provide to EPA a U.S. Partnership Annual Report. This report will be in the form of a letter to EPA. Based on the Company-specific annual reports, the designated third party will provide an aggregated Partnership report estimating PFC emissions by gas.

The third party will make available to EPA emissions estimates prepared by the Partner Companies and the written explanation of the methodology used. This information will be reviewed by EPA on the designated third party's premises. The designated third party will remove Company-identifying information from such documents before they are reviewed by EPA.

(i) Data items

The confidential data depository will include the following information:

- The Partner Company name, name of a designated Partner Company representative, contact phone number, and fax number;
- Reporting period;
- Overall estimate of PFC emissions for all U.S. facilities operated by the Partner Company,
- Description of methodology used for calculating PFC emissions estimates.

The U.S. Partnership Annual Report prepared by the designated third party will include the following information:

- Reporting period;
- Total number of participating semiconductor manufacturers; and
- Total PFC emissions estimate for the semiconductor industry partnership.

(ii) Respondent activities

In developing and submitting this information, the designated third party will perform the following activities:

- Develop and update confidential data depository;
- Receive Company-specific annual reports and enter into confidential data depository;

- Complete and submit to EPA the U.S. Partnership Annual Report containing an aggregated PFC emissions estimate;
- File and maintain copies of annual reports; and
- Make emissions estimates and written explanations of the methodology prepared by Partner Companies available to EPA for review.

Information Sharing

Each Partner Company agrees that it will share with EPA and others in the semiconductor industry information about successful PFC emission reduction processes and technologies that the Partner Company considers nonconfidential.

(i) Data item

- Documentation describing applicable PFC reduction processes and technologies.

(ii) Respondent activity

- The Partner Companies will share information about successful PFC emission reduction processes and technologies by submitting this information to EPA.

5. THE INFORMATION COLLECTED--AGENCY ACTIVITIES, COLLECTION METHODOLOGY, AND INFORMATION MANAGEMENT

5(a) Agency Activities

The Partnership requires EPA to perform certain activities associated with the Company-specific annual report, the U.S. Partnership Annual Report, and the information sharing. Each of these three ongoing information collections, and the Agency's activities associated with them, are described in more detail below.

Memorandum of Understanding

EPA developed an MOU in cooperation its industry partners and has signed agreements with the majority of the U.S. industry. EPA does not expect to take any further actions related to the partnership's MOU.

Company-specific Annual Reports

EPA will perform the following activities with regard to the Company-specific annual report submitted by the Partner Company to the designated third party:

- Review Company-specific annual reports on the premises of the designated third party, on a blind basis.

U.S. Partnership Annual Reports

EPA will perform the following activities with regard to the U.S. Partnership Annual Report submitted by the designated third party to EPA:

- Receive and review the U.S. Partnership Annual Report; and
- File and maintain copies of the annual report.

Information Sharing

EPA will perform the following activities with respect to information sharing with the Partner Company and the public:

- Establish and maintain clearinghouse of technical information on successful strategies for reducing PFC emissions; and
- Provide public recognition of Partner Companies' achievements in reducing PFC emissions and for their public service in protecting the environment.

5(b) Collection Methodology and Management

In collecting and analyzing the information associated with this ICR, EPA uses electronic equipment such as personal computers and applicable database software, where applicable. EPA will ensure the accuracy and completeness of collected information by reviewing each Partner Company's submitted information. EPA will maintain files of MOUs and other reports. Public access to the overall annual emission estimate will be possible through EPA's Partnership Internet web site (www.epa.gov/semiconductor-pfc), annual Climate Change Action Plan (CCAP) reporting, EPA's annual Inventory of U.S. Greenhouse Gas Emissions and Sinks, and informational materials EPA will prepare to publicize the successes of the Partnership.

5(c) Small Entity Flexibility

EPA reviewed available company websites for Partner Companies that were believed to be small entities. Upon completion of the review, EPA estimates that none of its semiconductor industry Partners are small entities. Regardless, EPA has designed the program and reporting form to minimize respondent burden while obtaining sufficient and accurate information. In addition, the burden associated with the PFC Reduction/Climate Partnership is inherently reduced since the initial agreement to participate is voluntary.

5(d) Collection Schedule

EPA collects information in the MOU, which is completed and submitted by the Partner Company. EPA will receive the Partnership's emissions report from the designated third party

on an annual basis. EPA may collect other program information on a periodic basis or as the information is submitted.

6. ESTIMATING THE BURDEN AND COST OF THE COLLECTION

6(a) Estimating Respondent Burden

Exhibit 1 presents the estimated annual respondent burden and costs for information collection activities associated with the PFC Reduction/Climate Partnership. The exhibit includes the number of hours required to conduct the information collection activity and the cost associated with each requirement. In developing burden estimates for each information collection in this ICR, EPA consulted with current Partner Companies. (See Section 3(c) of this ICR for information on the consultations.) As shown in Exhibit 1, EPA estimates a total annual respondent burden of approximately 11,426 hours. Assumptions used in calculating this estimate are described below.

6(b) Estimating Respondent Costs

Labor Costs

EPA estimates respondent labor costs by adding U.S. wages[7] to employers' costs for employee compensation[8] for the appropriate respondent categories and multiplying the total by 1.35 to adjust for an assumed 35 percent overhead rate. For the Partner Companies, EPA estimates average hourly labor rates of $114.87 for legal staff, $113.02 for engineering managers, $64.15 for semiconductor production technicians, and $67.03 for clerical staff. Table 1 summarizes EPA's estimated labor rates as explained above.

Table 1: Average Hourly Respondent Labor Rates

Cost Data	Type of Respondent			
	Legal	**Engineering Managers**	**Technical (Semiconductor Production)**	**Clerical**
Wages (hourly)	$54.65	$52.90	$16.70	$18.83
Employee Compensation (hourly)	$30.44	$30.82	$30.82	$30.82
Total Hourly Labor Rate = sum of above x 1.35	**$114.87**	**$113.02**	**$64.15**	**$67.03**

Capital and Operation and Maintenance (O&M) Costs

7 U.S. Department of Labor, Bureau of Labor Statistics May 2007.
http://www.bls.gov/news.release/pdf/ocwage.pdf
8 U.S. Department of Labor, Bureau of Labor Statistics December 2007.
http://www.bls.gov/news.release/pdf/ecec.pdf

The Companies participating in the Partnership are not required to incur any notable capital costs under the Partnership (i.e., for analytical equipment used to develop PFC emissions factors). The Partner Companies' equipment suppliers normally characterize PFC emissions and provide this information as a standard business practice. In addition, emissions factors tables are available to the industry through the Intergovernmental Panel on Climate Change.

Companies participating in the Partnership may incur annual operation and maintenance (O&M) costs. Partner Companies may incur O&M costs by continuing to develop and operate gas tracking programs, operating and maintaining analytical equipment to allow for continued analysis of emissions, and submitting information to EPA (based on postage costs of $3.00 per mailing). Partner Companies also may incur O&M costs associated with travel to meetings as a part of their sharing of information.

6(c) Estimating Agency Burden and Cost

Exhibit 2 presents the estimated Agency burden and costs for the information collection activities covered in this ICR. As shown in the exhibit, EPA estimates an average hourly labor cost (labor plus overhead) of $71.34 for legal staff, $66.72 for managerial staff, $48.91 for technical staff, and $19.65 for clerical staff. To derive these estimates, EPA referred to the "Hourly Salary Table 2007 - GS" from the Department of Personnel Management. This publication summarizes the unloaded (base) hourly rate for various labor categories in the Federal Government. For purposes of this ICR, EPA assigned staff the following government service levels:

- Legal Staff — GS-15, Step 1
- Managerial Staff — GS-14, Step 4
- Technical Staff — GS-12, Step 5
- Clerical Staff — GS-5, Step 1.

To derive the loaded hourly estimates, EPA multiplied hourly rates by the standard government overhead factor of 1.6. As shown in Exhibit 2, EPA estimates that the annual Agency burden for all activities covered in this ICR is 218 hours at a total cost of $12,696.

6(d) Estimating the Respondent Universe and Total Respondent Burden and Costs

Respondent Universe

EPA expects the current 21 Partner Companies to maintain their active participation for the three-year effective life of this ICR renewal. The following paragraphs discuss the information collections these Partner Companies will perform under the Partnership. Exhibit 1 calculates the annual burden and cost to Partner Companies in performing these collections.

Company-Specific Annual Report

Each Partner Company agrees to prepare a Company-specific annual report to be submitted to the designated third party. The report will provide an estimate of the Partner Company's PFC emissions by gas for the previous calendar year. Most of EPA's current Partner Companies have participated and prepared annual reports since 1999. These activities are reflected in Exhibit 1.

U.S. Partnership Annual Report

The designated third party will be responsible for receiving and tracking the Company-specific annual reports and compiling them into a U.S. Partnership Annual Report. The designated third party will create and update a confidential data depository containing the annual reports supplied by the Partner Companies. The designated third party will provide to EPA a U.S. Partnership Annual Report. Based on the Company-specific annual reports, the designated third party will provide an aggregated, overall PFC emissions estimate.

In addition, the designated third party will make available to EPA emissions estimates prepared by the Partner Companies and the written explanation of the methodology used. This information also will be maintained on site by the designated third party and reviewed by EPA on the designated third party's premises. These activities are reflected in Exhibit 1.

Information Sharing

The Companies participating in the Partnership agree to share with EPA information about successful PFC emission reduction processes and technologies that the Partner Companies consider nonconfidential, and will share such nonconfidential information with others in the semiconductor industry. Partner Companies may incur burden and costs for attending meetings (including travel and lodging costs), participating in teleconferences with EPA and industry, and other outreach efforts. EPA estimates the all 21 Partner Companies will share information each year. The Partners' expected activities are reflected in Exhibit 1.

6(e) Bottom Line Burden and Costs

Respondent Tally

In Exhibit 1, EPA estimates the total annual respondent burden and cost for the information collection under the PFC Emission Reduction Partnership to be approximately 11,426 hours and estimated to be $938,461. The bottom line respondent burden over the three-year period covered by this ICR is approximately 34,277 hours, at a total cost of approximately $2,815,383. The total annual capital and O&M costs for the partnership are estimated to be $116,319 per year.

Agency Tally

As shown in Exhibit 2, the annual Agency burden and cost are estimated to be approximately 218 hours and estimated to be $12,696 per year. The bottom line Agency burden over the three-year period covered by this ICR is approximately 654 hours, at a total cost of approximately $38,088.

Variations in the Annual Bottom Line

EPA anticipates no significant variation in the annual respondent reporting and/or recordkeeping burden over the next three years.

6(f) Reasons for Change in Burden

The number of burden hours has not changed from the previous ICR but the estimated annual burden cost increased to reflect updated labor compensation rates as provided by the U.S. Department of Labor. The number of Companies in the Partnership is expected to remain at 21. This ICR does not expect burden hours associated with the MOU activities.

6(g) Burden Statement

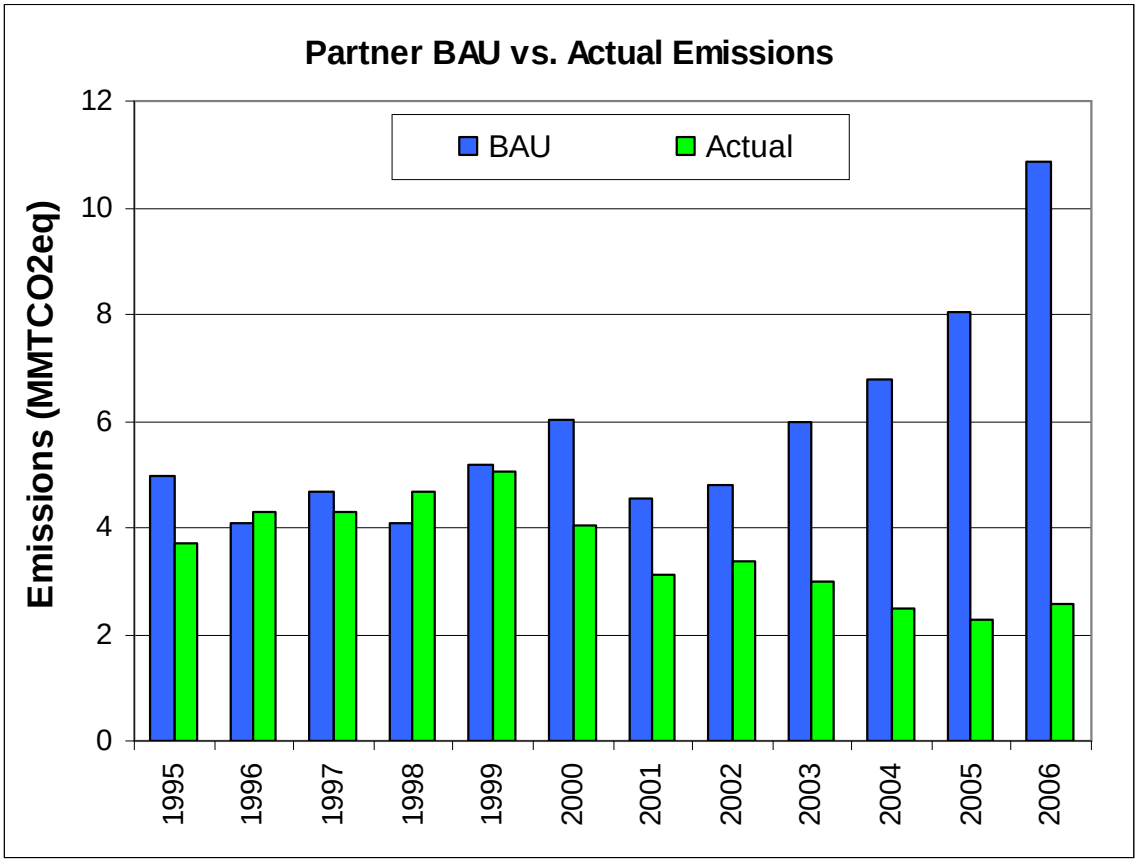
The annual public reporting burden for this collection of information is estimated to average 542 hours per Partner Company. There is no recordkeeping burden for Partner Companies. The annual reporting burden is estimated to be about eight hours for the designated third party. The eight-hour estimate includes time for preparing and submitting the U.S. Partnership Annual Report and making emissions data available to EPA. The annual recordkeeping burden to the designated third party is estimated to be roughly 46 hours. This burden includes time for updating and maintaining the data depository, receiving and entering Company-specific reports into the depository, and filing and maintaining copies of Company-specific annual reports.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. The OMB Control Numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OAR-2004-0228, which is available for public viewing at the Air and Radiation Docket and Information Center in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Avenue, NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket and Information Center is (202) 566-1742.

An electronic version of the public docket is available at www.regulations.gov. This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Office for EPA. Please include the EPA Docket ID No. EPA-HQ-OAR-2004-0228 in any correspondence.

Figure 1. U.S. Partner Companies' PFC emission with and without EPA Partnership.


Partner BAU vs. Actual Emissions
Emissions (MMTCO2eq)
BAU
Actual
0
2
4
6
8
10
12
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006