

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 98**

[EPA-HQ-OAR-2009-0927; FRL-9469-3]

RIN 2060-AR26

**Mandatory Reporting of Greenhouse Gases: Changes to Provisions for Electronics Manufacturing To Provide Flexibility**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is issuing a regulation to amend the calculation and monitoring provisions in the Electronics Manufacturing portion of the Greenhouse Gas Reporting Rule for the “largest” semiconductor manufacturing facilities (i.e., those that fabricate devices on wafers measuring 300 millimeters or less in diameter and that have an annual manufacturing capacity of greater than 10,500 square meters). More specifically, for reporting years 2011, 2012, and 2013, these amendments allow the largest semiconductor facilities the option to calculate emissions using default emission factors already contained in the regulations, instead of recipe-specific utilization and by-product formation rates for the plasma etching process type. In addition, this action

extends two deadlines in the provisions related to the use of best available monitoring methods.

**DATES:** This final rule is effective on September 30, 2011.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2009-0927. All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and is publicly available in hard copy only. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at the Air Docket, EPA/DC, EPA West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Ms. Carole Cook, Climate Change Division, Office of Atmospheric Programs (MC-6207J), Environmental Protection Agency, 1200 Pennsylvania Avenue,

NW., Washington DC 20460; telephone number (202) 343-9263; fax (202) 343-2342; e-mail address: [GHGReportingRule@epa.gov](mailto:GHGReportingRule@epa.gov). For technical information, please go to the Greenhouse Gas Reporting Rule Program Web site <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>. To submit a question, select Rule Help Center, followed by “Contact Us.”

*Worldwide Web (WWW).* In addition to being available in Docket ID No. EPA-HQ-OAR-2009-0927, following the Administrator’s signature, an electronic copy of this final rule will also be available through the WWW on EPA’s Greenhouse Gas Reporting Program Web site at <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>.

**SUPPLEMENTARY INFORMATION:**

*Regulated Entities.* The Administrator determined that this action is subject to the provisions of Clean Air Act (CAA) section 307(d). See CAA section 307(d)(1)(V) (the provisions of section 307(d) apply to “such other actions as the Administrator may determine”). These are final changes to existing regulations. These amended regulations affect owners or operators of certain manufacturers of electronic devices. Regulated categories and examples of affected entities include those listed in Table 1 of this preamble.

TABLE 1—EXAMPLES OF AFFECTED ENTITIES BY CATEGORY

Category	NAICS	Examples of affected facilities
Electronics Manufacturing .....	334111	Microcomputer manufacturing facilities.
	334413	Semiconductor, photovoltaic (solid-state) device manufacturing facilities.
	334419	Liquid Crystal Display (LCD) unit screens manufacturing facilities.
	334419	Micro-electro-mechanical systems (MEMS) manufacturing facilities.

Although Table 1 of this preamble lists the types of facilities that EPA is now aware could be potentially affected by this action, other types of facilities not listed in the table could also be affected. To determine whether you are affected by this action, you should carefully examine the applicability criteria found in 40 CFR part 98, subparts A and I. If you have questions regarding the applicability of this action to a particular facility or supplier, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** Section.

The final rule is effective on September 30, 2011. Section 553(d) of the Administrative Procedure Act (APA), 5 U.S.C. Chapter 5, generally provides that rules may not take effect

earlier than 30 days after they are published in the **Federal Register**. EPA is issuing this final rule under section 307(d)(1) of the CAA, which states: “The provisions of section 553 through 557 \* \* \* of Title 5 shall not, except as expressly provided in this section, apply to actions to which this subsection applies.” Thus, section 553(d) of the APA does not apply to this rule. EPA is nevertheless acting consistently with the purposes underlying APA section 553(d) in making this rule effective on September 30, 2011. Section 5 U.S.C. 553(d)(3) allows an effective date less than 30 days after publication “as otherwise provided by the agency for good cause found and published with the rule.” As explained below, EPA finds that there is

good cause for this rule to become effective on September 30, 2011, even though this results in an effective date fewer than 30 days from date of publication in the **Federal Register**.

The purpose of the 30-day waiting period prescribed in 5 U.S.C. 553(d) is to give affected parties a reasonable time to adjust their behavior and prepare before the final rule takes effect. Where, as here, the revisions being made in this package provide flexibilities to sources covered by the reporting rule, a shorter effective date in such circumstances is consistent with the purposes of APA section 553(d), which provides an exception for any action that grants or recognizes an exemption or relieves a restriction. Accordingly, we find good cause exists to make this rule effective

on September 30, 2011, consistent with the purposes of 5 U.S.C. 553(d)(3).

**Judicial Review.** Under section 307(b)(1) of the CAA, judicial review of this final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit (the Court) by November 28, 2011. Under CAA section 307(d)(7)(B), only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. CAA section 307(d)(7)(B) also provides a mechanism for EPA to convene a proceeding for reconsideration, “[i]f the person raising an objection can demonstrate to EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule.” Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the Office of the Administrator, Environmental Protection Agency, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to the person listed in the preceding **FOR FURTHER GENERAL INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20004. Note, under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

### Acronyms and Abbreviations

The following acronyms and abbreviations are used in this document.

APA Administrative Procedure Act.  
 BAMM best available monitoring methods.  
 CAA Clean Air Act.  
 CBI confidential business information.  
 CFR Code of Federal Regulations.  
 DRE Destruction or Removal Efficiency.  
 EPA U.S. Environmental Protection Agency.  
 FR **Federal Register.**  
 GHG greenhouse gas.  
 ICR Information Collection Request.  
 ISMI International Sematech Manufacturing Initiative.  
 LCD Liquid Crystal Display.  
 LED Light-emitting Diodes.  
 m<sup>2</sup> square meters.  
 mm millimeter.  
 MEMS Micro-electro-mechanical systems.  
 NAICS North American Industrial Classification System.

NTTAA National Technology Transfer and Advancement Act of 1995.  
 OMB Office of Management and Budget.  
 QA/QC Quality Assurance/Quality Control.  
 RFA Regulatory Flexibility Act.  
 RIA Regulatory Impact Analysis.  
 SBA Small Business Administration.  
 SIA Semiconductor Industry Association.  
 SBREFA Small Business Regulatory Enforcement and Fairness Act.  
 U.S. United States.  
 UMRRA Unfunded Mandates Reform Act of 1995.  
 USC United States Code.  
 WWW World Wide Web.

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### I. Background

#### A. Organization of This Preamble

The first section of this preamble contains the basic background information about the origin of the amendments to the rule being made today. This section also discusses EPA's use of our legal authority under the Clean Air Act to collect data under the Greenhouse Gas Reporting Program

(also referred to as 40 CFR part 98 or Part 98).

The second section of this preamble describes in detail the changes to subpart I that are being promulgated, and EPA's rationale for those changes. This section also presents a summary of, and EPA's responses to, the major public comments submitted on the proposed rule amendments, and significant changes, if any, made since proposal in response to those comments.

Finally, the last (third) section of the preamble discusses the various statutory and executive order requirements applicable to this rulemaking.

#### B. Background on This Action

EPA finalized subpart I: Electronics Manufacturing of the Greenhouse Gas Reporting Rule on December 1, 2010 (40 CFR part 98, subpart I) (75 FR 74774) (subpart I). In that rule, among other provisions, EPA finalized two different methods for facilities that manufacture semiconductor wafers measuring 300 mm or less in diameter to calculate and report their fluorinated GHG emissions, depending on the facility's manufacturing capacity: (1) A method for those facilities that have an annual manufacturing capacity greater than 10,500 m<sup>2</sup> of substrate (hereinafter referred to as the “largest semiconductor manufacturing facilities”), and (2) a method for facilities that have an annual manufacturing capacity that is less than or equal to 10,500 m<sup>2</sup> of substrate (hereinafter referred to as “other semiconductor manufacturing facilities”). Pursuant to 40 CFR 98.93(a)(2)(ii), the largest semiconductor manufacturing facilities must calculate and report their emissions using a combination of default emission factors and directly measured recipe-specific emission factors. For the following four process types and sub-types, the largest semiconductor manufacturing facilities must calculate emissions using only the default emission factors:

- Chamber cleaning process type which includes the following three process sub-types:
  - In-situ plasma chamber cleaning process sub-type.
  - Remote plasma chamber cleaning process sub-type.
  - In-situ thermal chamber cleaning process sub-type.
- Wafer cleaning process type.

For the plasma etching process type, the largest semiconductor manufacturing facilities are required to calculate emissions using only directly measured recipe-specific emission factors. This method is referred to as the Tier 2d method.

Pursuant to 40 CFR 98.93(a)(2)(1), other semiconductor manufacturing facilities must calculate and report their fluorinated GHG emissions using default emission factors for the following five process types and sub-types:

- Plasma etching process type.
  - Chamber cleaning process type, which includes the following three process sub-types:
    - In-situ plasma chamber cleaning process sub-type.
    - Remote plasma chamber cleaning process sub-type.
    - In-situ thermal chamber cleaning process sub-type.
  - Wafer cleaning process type.
- This method is referred to as the Tier 2c method.

In the December 1, 2010 rule, EPA also included provisions in section 98.94(a) for all electronics manufacturing facilities to use and/or request the use of best available monitoring methods (BAMM) for a specific period of time in lieu of following the monitoring and Quality Assurance/Quality Control (QA/QC) requirements of subpart I for certain parameters that cannot reasonably be measured.

Following the publication of subpart I in the **Federal Register**, the Semiconductor Industry Association (SIA) sought reconsideration of several provisions in the final rule (See SIA petition available in Docket ID No. EPA-HQ-OAR-2009-0927). In particular, SIA raised concerns about the provisions related to the use of BAMM and also the individual recipe measurement approach, that is, the requirement that the largest facilities develop and use recipe-specific emission factors for etch processes.<sup>1</sup>

In response to SIA's petition, EPA took two initial actions. First, on June 22, 2011 EPA granted reconsideration with respect to the deadlines contained in the subpart I BAMM provisions and published a final rule that extended three of the subpart I BAMM deadlines, relating to when owners and operators may use or request to use BAMM, from June 30, 2011 to September 30, 2011 (76 FR 36339). Second, also on June 22, 2011, EPA published a proposed rule to allow the largest semiconductor manufacturers to use the default utilization and by-product formation rates (default emission factors) already contained within subpart I in Tables I-3 and I-4 to estimate fluorinated GHG emissions for the plasma etching process type through December 31,

2012, instead of using directly measured recipe-specific emission factors for each individual recipe or set of similar recipes<sup>2</sup> (76 FR 36472). This proposed action also sought comment on whether certain BAMM deadlines should be extended, whether the largest semiconductor manufacturing facilities should be allowed to use default emission factors in lieu of recipe-specific emission factors through December 31, 2013, and on the verification requirement for facility specific engineering models used to apportion gas consumption (40 CFR 98.94(c)(2)).

### C. Legal Authority

EPA is promulgating these rule amendments under its existing CAA authority, specifically authorities provided in CAA section 114.

As stated in the preamble to the 2009 final Part 98 (74 FR 56260, October 30, 2009) and the Response to Comments on the Proposed Rule, Volume 9, Legal Issues, CAA section 114 provides EPA broad authority to require the information proposed to be gathered by this rule because such data would inform and are relevant to EPA's carrying out a wide variety of CAA provisions. As discussed in the preamble to the initial proposed part 98 (74 FR 16448, April 10, 2009), CAA section 114(a)(1) authorizes the Administrator to require emissions sources, persons subject to the CAA, manufacturers of control or process equipment, or persons whom the Administrator believes may have necessary information to monitor and report emissions and provide such other information the Administrator requests for the purposes of carrying out any provision of the CAA. For further information about EPA's legal authority, see the preambles to the 2009 proposed and final Part 98 rules and EPA's Response to Comments, Volume 9.<sup>3</sup>

## II. Final Changes to Subpart I of 40 CFR part 98 and Responses to Public Comments

### A. Summary of Final Changes to Subpart I

In this action, EPA is finalizing provisions to allow the largest semiconductor manufacturing facilities the option to calculate emissions using

<sup>2</sup> Pursuant to subpart I, to be included in a set of similar recipes, a recipe must be similar to the recipe in the set for which recipe-specific utilization and by-product formation rates have been measured.

<sup>3</sup> 74 FR 16448 (April 10, 2009) and 74 FR 56260 (October 30, 2009). Response to Comments Documents can be found at <http://www.epa.gov/climatechange/emissions/responses.html>.

default emission factors already contained within subpart I, instead of recipe-specific emission factors, for the plasma etching process type for reporting years 2011, 2012, and 2013. In other words, through December 31, 2013, the largest semiconductor manufacturing facilities may use the Tier 2c<sup>4</sup> method to estimate fluorinated GHG emissions from etching and cleaning processes. This gives more time for EPA to work on various approaches SIA has proposed as alternatives to the recipe-specific approach. SIA is currently in the process of providing information to EPA for consideration and evaluation.

As EPA explained in the preamble to the June 22, 2011 proposed rule, SIA has identified three alternative methodologies that they are proposing for the Agency's consideration and for which they are currently collecting information to support their development: (1) Etch Process Subcategories and Default Emissions Factors; (2) Direct Estimation of Emissions Based on Use Allocation and Application of Abatement Unit Destruction and Efficiency (DRE); and (3) Stack Testing (75 FR 36472). For more information on the three options, please refer to SIA's letter (available in docket EPA-HQ-OAR-2009-0927).

Since publication of the proposed rule, SIA has continued to pursue the three options and provide EPA with supporting technical information and/or future work plans. Given the technical complexity of the three alternatives and based on the current status of their development, EPA has determined that more time is needed for SIA to continue to work on the alternative options, for EPA to fully assess them, and for the Agency to undertake rulemaking to revise subpart I as appropriate. Over the next approximately two and a half years, EPA plans to comprehensively evaluate the technical information that SIA provides on the methodologies, determine whether one or more of them should be included in subpart I as alternatives to the recipe-specific measurement approach for the largest semiconductor manufacturing facilities, and revise subpart I as appropriate, through a notice and comment

<sup>4</sup> In the December 1, 2010 final rule (75 FR 74774), EPA named the following method the "Tier 2c Method"—A method based on calculating and reporting fluorinated GHG emissions using default emission factors for the following five process types and sub-types: the plasma etching process type; the chamber cleaning process type, which includes the following three process sub-types: the in-situ plasma chamber cleaning process sub-type, the remote plasma chamber cleaning process sub-type, the in-situ thermal chamber cleaning process sub-type; and the wafer cleaning process type.

<sup>1</sup> For more information, see SIA's petition in the docket, EPA-HQ-OAR-2009-0927.

rulemaking. It is EPA's intention to finalize a revision to subpart I that can be implemented by the largest semiconductor manufacturing facilities by January 1, 2014.

This action also extends two deadlines in the subpart I provisions related to the use of Bamm. First, EPA is extending the date by which an owner or operator subject to subpart I may, without submitting a request, use Bamm to estimate 2011 emissions from September 30, 2011 to December 31, 2011. EPA is extending the deadline to provide additional flexibility for any owner or operator that was unable to meet the February 28, 2011 deadline for submitting a request for the use of Bamm in 2011 for parameters other than recipe-specific emission factors. Second, EPA is extending the date by which an owner or operator may submit a request to extend the use of Bamm beyond December 31, 2011 from September 30, 2011 to October 17, 2011. EPA is extending the deadline to provide owners and operators additional time to prepare and submit the request. EPA has concluded that this flexibility is appropriate given that the effective date of this final rule, September 30, 2011, is the same as the date by which extension requests are required to be submitted to the Administrator. See Section II.B.2 below of this preamble for additional discussion on both of these topics.

Lastly, in this action, EPA is clarifying several aspects of the subpart I Bamm provisions. More specifically, EPA is clarifying that the subpart I Bamm provisions for estimating emissions beyond December 31, 2011 do not specify an end date to the period for which EPA may approve the use of Bamm. In addition, EPA is clarifying the distinction between the elements of the Bamm application and the approval criteria by which EPA will determine if a facility is approved to use Bamm to estimate emissions beyond December 31, 2011.

Under today's final rule, owners and operators applying to extend the use of Bamm beyond December 31, 2011 must submit a request to EPA no later than October 17, 2011. The Bamm extension provisions do not impose an end date: for example, they do not say that extensions are limited to 2012. EPA does not intend to approve the indefinite use of Bamm; all Bamm applications should specify the date on which the facility plans to cease the use of Bamm. However, EPA does understand that there are specific aspects of the final subpart I provisions for which compliance may not be reasonably feasible for certain facilities

during the interim period addressed in this rulemaking and for which, in some cases, EPA is evaluating and considering other approaches. In particular, the establishment of an interim period through 2013 during which the largest facilities have the option of using the Tier 2c method<sup>5</sup> while the Agency considers longer-term alternatives may affect facilities' planning for compliance with other aspects of subpart I. In part, this is because the potential incorporation of alternative methods into subpart I could render certain aspects of the rule moot for some facilities, depending on the alternative adopted. For example, if EPA were to propose to revise subpart I to include a stack testing method, the Agency would also consider whether certain aspects of subpart I as currently written would be unnecessary to determine the emissions of facilities using that method. In addition, any revisions to subpart I to incorporate alternative methods likely would not be effective until 2014, meaning that facilities that are interested in moving toward alternatives and that are requesting Bamm for 2012 may need to consider whether their applications should include 2013 as well.

EPA has concluded that the existing subpart I Bamm provisions provide flexibility to address facilities' needs during this interim period as the Agency continues to consider longer-term alternatives. See Section II.A.2 and II.A.3 for additional discussion on this topic.

EPA is also clarifying the difference between the application requirements and the approval criteria for Bamm extensions in subpart I. The application requirements are contained in 40 CFR 98.94(a)(4)(ii), and the approval criteria appear in 40 CFR 98.94(a)(4)(iii). With regard to approval, the rule states, "To obtain approval, the owner or operator must demonstrate that by December 31, 2011 (or in the case of facilities that are required to calculate and report emissions in accordance with § 98.93(a)(2)(ii)(A), December 31, 2012), it is not reasonably feasible to acquire, install, or operate the required piece of monitoring equipment according to the requirements of this subpart." Given today's final rule to allow the largest semiconductor manufacturing facilities to use default emission factors to estimate emissions for the plasma etching process type during an interim period, EPA doesn't anticipate receiving any requests for the use of Bamm for recipe-specific emission factors. If there are facilities that are unable to meet the

requirements for other monitoring or QA/QC aspects of subpart I in 2012 or beyond, then they should apply for Bamm for the period they believe to be necessary and EPA will evaluate whether to allow the use of Bamm and for how long. In some instances, EPA anticipates that facilities will come into compliance with the requirements quickly; for others, EPA understands that facilities may wish to use Bamm while EPA considers alternatives. It is important to note that EPA does not anticipate approving the use of Bamm for current subpart I provisions beyond the time that EPA promulgates a final rule with alternative methodologies. As stated in previous paragraphs of this section, we anticipate issuing a revised rule by January 1, 2014.

### *B. Summary of Comments and Responses*

EPA received comments from five entities. In general, all commenters supported EPA's proposal to allow the largest semiconductor manufacturing facilities to use default emission factors to estimate fluorinated GHG emissions for the plasma etching process type for 2011 and 2012, and requested that EPA extend the use of defaults through December 31, 2013. The comments are addressed in more detail below.

#### **1. Summary of Comments and Responses on Allowing the Largest Semiconductor Manufacturing Facilities To Use Default Emission Factors for the Plasma Etching Process Type**

All five commenters strongly supported EPA's proposal to allow the largest semiconductor manufacturing facilities to use the Tier 2c Method<sup>6</sup> to calculate emissions for the years 2011 and 2012 in lieu of using the Tier 2d Method.<sup>7</sup> These commenters viewed the finalization of this flexibility provision as an important first step in addressing their technical feasibility, compliance cost, and data confidentiality concerns about subpart I. (One commenter provided accompanying detailed documentation to support each of the aforementioned concerns.) These same commenters also noted that allowing the use of the Tier 2c Method<sup>8</sup> in 2011 and 2012 provides more time for members of the industry to conduct ongoing work in

<sup>6</sup> See footnote 4.

<sup>7</sup> In the December 1, 2010 final rule (75 FR 74774), EPA named the following method the "Tier 2d Method"—A method based on calculating and reporting fluorinated GHG emissions using default emission factors for the three chamber cleaning process sub-types (defined in footnote 4) and the wafer cleaning process type, and recipe-specific emission factors for the plasma etching process type.

<sup>8</sup> See footnote 4.

<sup>5</sup> See footnote 4.

support of various alternative approaches to estimating and reporting fluorinated GHG emissions for EPA to evaluate and consider. Some commenters referenced the three alternatives proposed by SIA as discussed in a letter dated May 26, 2011 (available in docket EPA-HQ-OAR-2009-0927). One commenter stated, "These alternatives [the SIA proposed alternatives], if adopted by EPA, will provide the largest semiconductor facilities a menu of GHG reporting options that will avoid the serious issues raised by the current subpart I, while providing comparable or better accuracy than the current rule." Another commenter opined that the ongoing alternatives work could be done while still allowing facilities to report fluorinated GHG emissions in a manner that avoids feasibility and cost issues that the commenter believed were inherent to subpart I.

A few commenters asserted that because of feasibility, cost, and confidentiality issues, many facilities would need to file BAMM requests for developing or obtaining recipe-specific emission factors for the plasma etching process type. Several commenters supported the flexibility provisions because they provide uniform relief from BAMM petition requests, avoiding spending both facility and EPA resources to prepare and review BAMM requests on an individualized case basis.

Similarly, all commenters strongly supported extending the use of the Tier 2c Method<sup>9</sup> beyond December 31, 2012 through 2013. One commenter stated that it shared EPA's goal of finalizing any alternative approaches for estimating and reporting fluorinated GHG emissions for the 2013 reporting year. However, commenters argued that, given the technical complexities associated with development of alternatives to the Tier 2d Method,<sup>10</sup> additional time will be necessary for industry to test and collect data about the alternatives and for EPA to evaluate those alternatives. One commenter asserted that this extension would allow the facility to focus its resources on developing alternative emission estimation and reporting methods as opposed to diverting resources to an approach that it does not believe is workable.

Another commenter stated that it was critical to extend the time period in which default emission factors could be used to estimate emissions from all process types/sub-types. The

commenter further stated that the current schedule to finalize a revised subpart I by the end of 2012 is aggressive and accelerated, and may result in a repeat of the shortcomings that led to the final subpart I published in December 2010 (75 FR 74774). The same commenter also expressed the opinion that it is important that the process of revising subpart I does not drag on interminably, but it is equally important that EPA has sufficient information to balance requirements, accuracy and precision of emission estimates, and costs. The commenter argued that allowing the use of the Tier 2c Method<sup>11</sup> through 2013 will allow EPA to find that balance.

In response to these comments received, EPA is finalizing a provision to allow the largest semiconductor manufacturing facilities the option to use, for an interim period, the default utilization and by-product formation rates already contained within subpart I, in Tables I-3 and I-4, to estimate fluorinated GHG emissions for the plasma etching process type instead of using directly measured recipe-specific emission factors. In addition, EPA agrees with commenters that the largest semiconductor manufacturing facilities should be allowed to use the default emission factors to estimate emissions from etch processes through December 31, 2013 (*i.e.*, use the Tier 2c Method<sup>12</sup> through 2013), and in this final rule is allowing the largest semiconductor manufacturing facilities to use default emission factors for reporting years 2011, 2012, and 2013. EPA has concluded that the additional year will provide more time for industry to continue to collect and analyze information for the development of SIA's three proposed alternatives, for EPA to evaluate and determine which alternatives may be included in a subsequent action, and for EPA to undertake a rulemaking, as appropriate. As EPA stated above, over the next approximately two and a half years, EPA plans to comprehensively evaluate the technical information that SIA provides on the methodologies, determine whether one or more of them should be included in subpart I as alternatives to the recipe-specific measurement approach for the largest semiconductor manufacturing facilities, and revise subpart I as appropriate. During the time in which this flexibility is being provided to industry, EPA expects SIA to continue to collect detailed information on the alternative

methodologies that EPA plans to use to support its evaluation.

EPA believes this approach effectively balances the industry's request for flexibility with sufficient time for EPA to fully evaluate the information that SIA provides on the alternative methodologies to analyze the accuracy and precision of emission estimates, as well as burden. EPA believes that the time now allotted to working on the alternative options for estimating and reporting fluorinated GHG process emissions from semiconductor manufacturing is appropriate, and intends to finalize a revision to subpart I that can be implemented by the largest semiconductor manufacturing facilities by January 1, 2014.

## 2. Summary of Comments and Responses on Extending the Use of BAMM

EPA requested comment on whether to extend, until December 31, 2011, the period during which an owner or operator subject to subpart I may use BAMM to estimate 2011 emissions without submitting a request. Under the existing subpart I provisions, finalized on June 22, 2011 (76 FR 36339), to estimate emissions that occur from January 1, 2011 to September 30, 2011, owners and operators may use BAMM without submitting a request for approval to the EPA Administrator (40 CFR 98.94(a)(1)). EPA requested comment on whether to extend the date by which owners and operators may use BAMM without submitting a request for approval by the Administrator to December 31, 2011.

In addition, EPA also requested comment on whether to extend two other BAMM deadlines: the deadline by which an owner or operator may request the use of BAMM for recipe-specific emission factors in 2011 and the deadline for requesting use of BAMM for estimating emissions beyond December 31, 2011. Under the subpart I provisions finalized on June 22, 2011 (76 FR 36339), both deadlines are September 30, 2011 (40 CFR 98.94(a)(3)(i) and 40 CFR(a)(4)(i)).

EPA did not receive any comments in response to its requests. However, after evaluating comments received and further consideration of the time period between the effective date of this final rule and the date by which requests to extend the use of BAMM beyond December 31, 2011 must be submitted, EPA is extending two of the subpart I BAMM deadlines. First, EPA is extending until December 31, 2011 the time period during which an owner or operator may, without submitting a request, use BAMM to estimate

<sup>9</sup> See footnote 4.

<sup>10</sup> See footnote 7.

<sup>11</sup> See footnote 4.

<sup>12</sup> See footnote 4.

emissions in 2011. EPA is extending the deadline to provide flexibility for any owner or operator that was unable to meet the February 28, 2011 deadline for submitting a request to use BMM in 2011 for parameters other than recipe-specific emission factors. Given the short time between the publication of the final subpart I in December 2010 and February 28, 2011, there may have been some owners or operators that were unable to submit a request by the deadline. Second, EPA is extending the deadline by which an owner or operator may submit a request to use BMM to estimate emissions beyond December 31, 2011 from September 30, 2011 to October 17, 2011. EPA has concluded that this flexibility of approximately two weeks is appropriate given that the effective date of this final rule, September 30, 2011, is the same date as the deadline for submitting a request to the Administrator to extend the use of BMM beyond December 31, 2011. EPA anticipates that some owners and operators will submit requests for the use of BMM beyond December 31, 2011, and that they may need additional time to prepare and submit the request, particularly in light of the clarifications that EPA provided in this notice about the subpart I BMM provisions. EPA is not extending the deadline further than October 17, 2011 because sufficient time is needed for EPA to review and respond to the owner or operator before the beginning of the next reporting period on January 1, 2012.

EPA is not making any changes to the deadline for submitting a request to use BMM for recipe-specific emission factors in 2011. Given today's final rule that allows the largest semiconductor manufacturing facilities to use the Tier 2c method<sup>13</sup> for three years, EPA does not anticipate receiving any requests for the use of BMM for recipe-specific emission factors in 2011. If an owner or operator is unable to comply with the Tier 2d method,<sup>14</sup> then EPA anticipates that they will opt to use the Tier 2c method<sup>15</sup> as allowed by this final rule. Further, because EPA is also finalizing provisions today that allow the use of BMM in 2011, without submitting a request, there should be no reason for an owner or operator to submit a BMM request for recipe-specific factors in 2011.

This paragraph summarizes the final subpart I BMM provisions. From January 1, 2011 through December 31, 2011, owners or operators subject to subpart I may use BMM for any

parameter that cannot reasonably be measured according to the monitoring and QA/QC requirements of subpart I without submitting, and obtaining approval from, the Administrator. Starting January 1, 2012, owners and operators must discontinue the use of BMM and begin following all applicable monitoring and QA/QC requirements of subpart I unless they have submitted a request to extend the use of BMM and EPA has approved that request. Owners and operators wishing to extend the use of BMM to estimate emissions beyond December 31, 2011, must submit a request to the Administrator no later than October 17, 2011.

### 3. Summary of Comments and Responses on Apportioning Model Verification

In the proposed rule, EPA included a request for comment on the verification requirement for facility-specific engineering models (§ 98.94(c)(2)). In particular, EPA requested specific information about whether the final rule requirement to meet the five percent verification was overly burdensome and if so, facility-specific examples to illustrate why. EPA also requested comment on whether existing equipment or instrumentation can be used to measure actual gas consumption, and the costs of using that equipment or instrumentation. In addition, we requested comment on the specific actions a facility would have to take to comply with the requirement, and the costs associated with those actions. Finally, we requested comment on other approaches that could be used to verify modeled gas consumption to a similar level of accuracy.

In response to these requests, EPA received many comments that the apportioning model verification requirement raises feasibility and cost issues for facilities. One commenter noted that they had previously raised feasibility and cost issues with continuous gas flow measurement, which is believed to be required for the verification requirement, when subpart I was initially proposed in April of 2009. While the commenter recognized that the April 2009 gas measurement requirements (74 FR 16448) differ from those for the apportioning model verification, it asserted that many of the same feasibility and cost issues apply. In addition, the commenter referred to the concern it expressed with the difficulty in apportioning gas usage in comments on the April 2010 proposed in subpart I (75 FR 74774).

Several commenters stated that facilities will need to install hardware

and software to meet the verification requirements, and even with upgrades, it still may not be feasible to meet the verification requirement of less than 5 percent difference between the actual and modeled gas consumption. Another commenter elaborated further and stated that there are limitations in using an apportioning model that is based on nominal recipes because automated process controls used for many newer tools depend on potentially varying operating process parameters, and can result in differences between actual gas flow and nominal gas flow. Another commenter stated that gases have centralized distribution systems that supply multiple tools, and the systems do not typically have the ability to measure the amount of gas supplied to each individual tool. This commenter also asserted that while mass flow controllers (MFCs) are designed to control gas flow rate at precise levels, the MFCs do not log and integrate flow data over time to calculate consumption. Another commenter stated that of its 212 fluorinated GHG-using tool sets, 71 do not have adequate register space to collect the data required for gas allocation, and 15 do not have the ability to communicate with data collection systems. One commenter also stressed that collecting apportioning data for model verification would be technically infeasible for older tool sets.

One commenter expressed the opinion that the verification requirement was overly burdensome. Another commenter asserted that EPA incorrectly assumed in its Economic Impact Assessment that facilities already had the necessary hardware and infrastructure in place for model verification. The commenter stated that the capability is not currently in place and that based on an industry survey, industry will face costs of approximately \$9 million in the first year and \$29 million in all subsequent years to comply with the apportioning model verification requirement. The commenter stated that this is much higher than EPA's estimated total compliance costs of \$2.9 million for the first year and \$5.4 million for each subsequent year. One commenter estimated that the costs for one of its facilities to upgrade to meet the apportioning requirement, including the verification piece, would be \$0.6 million, and \$3.5 million in total company costs (not including software development and data collection and quantification labor costs). Another commenter stated that retrofitting a facility to meet apportioning

<sup>13</sup> See footnote 4.

<sup>14</sup> See footnote 7.

<sup>15</sup> See footnote 4.

requirements, in addition to the verification piece, is estimated to cost over \$4 million.

For the above stated technical feasibility and cost reasons, and because gas apportionment as required in the current subpart I (*i.e.*, apportioning to defined process types/sub-types and recipes), may not be required if alternative emission calculation estimation methods (*e.g.*, stack testing) are adopted in a future version of subpart I, several commenters requested that EPA provide temporary relief from the apportioning model verification requirement. (Several commenters also referenced supporting technical information and their BMM petitions as evidence to support their claims against the apportioning model verification requirements. Two commenters provided excerpts of BMM requests as part of their comments.) More specifically, these commenters proposed that EPA modify subpart I so as to not require facilities to meet the verification requirement in § 98.94(c)(2) for the time period during which the largest semiconductor facilities are allowed to use the Tier 2c method.<sup>16</sup> (Two commenters expressed the opinion that they should still be required to meet the repeatability requirements in § 98.94(c)(1) for apportioning models; another commenter stated that the verification should be delayed until further study can establish a more realistic target.) During this time, commenters noted alternative methods for verifying gas apportioning models will also be developed. Two commenters stated that if the relief for the apportioning model verification requirement was not granted, but the extension for using the Tier 2c Method<sup>17</sup> through 2013 was finalized, there would not be any mechanism to defer compliance with the apportioning model verification requirement while alternative emission estimation and reporting methods and apportioning methods are being worked through. These commenters stated their belief that BMM would not be available for 2013.

One commenter described an alternative method to accomplish verification for apportioning gas consumption. The commenter explained that an allocation process to determine the percent of each gas type used in each process type/sub-type may be used. This percentage would then be applied to the total amount of each gas consumed to determine the amount of gas consumed for each process type/

sub-type. The allocation process would be detailed in a facility site GHG monitoring plan and would be available for EPA review and inspection. The commenter further asserted that this process will be most relevant to etch process sub-types (which represent 15 percent to 35 percent of gas consumption at a facility). The commenter expressed the opinion that the allocation process provides adequate support for validating the gas allocation methodology. The commenter stated that they are working with other members of industry to develop alternatives to the apportioning model verification requirement, such as raising the current 5 percent verification level or specifying facility specific metrics on which an apportioning model must be based in a final regulation.

EPA appreciates the information provided by commenters on technical and cost issues associated with the apportioning model verification requirement. EPA also recognizes that if the Agency were to revise subpart I to include stack testing as an option for the largest semiconductor manufacturing facilities to estimate their fluorinated GHG emissions, an apportioning model as currently required in subpart I to apportion gas to different process types/sub-types and recipes, may not be required to estimate and report GHG emissions for facilities choosing the stack testing option. However, EPA did not propose to add any new methods to subpart I as part of the current rulemaking, and thus there was no need for the Agency to consider how such new methods might affect other aspects of the rule. Further, the Agency did not propose alternative methods for apportioning model verification, as it had not had an opportunity to evaluate alternatives. However, the BMM process should be adequate for resolving facility's concerns about compliance with the apportioning model verification requirement during the interim period addressed by this rule. Therefore, EPA is not taking action today to amend the apportioning model verification requirement; however, EPA may consider doing so in future.

EPA believes that apportioning is a particularly important component in estimating emissions of fluorinated GHGs from electronics manufacturing. Emission estimates, as required to be calculated in subpart I, are based on consumption of fluorinated GHGs for specific process types/sub-types or recipes and assigned emission factors to each process type/sub-type or recipe. Hence, there are two main sources of error in emissions estimates: (1) Errors associated with emission factors, and (2)

errors associated with the consumption of gas by process type/sub-type or recipe. An accurate and precise estimate of emissions does not only rely on using robust emission factors but also on accurate estimates of gas consumption.

EPA understands that there are multiple ways to monitor and model gas consumption. For this reason, in finalizing subpart I in December 2010, EPA provided flexibility for facilities to use different metrics for the engineering model to develop apportioning factors, and only required that the model be based on a quantifiable metric. Because of this flexibility, and to ensure consistency between reporting facilities, EPA required apportioning model verification. Nevertheless, EPA is sensitive to the issues raised by commenters about apportioning model verification and understands these issues may impact a facility's ability to comply. Therefore, if a facility is unable to meet the existing apportioning verification requirements in 40 CFR 98.94(c)(2), the owner or operator may use and/or apply for BMM as discussed in the following paragraphs.

Under the existing subpart I BMM provisions, a facility may use and/or apply to use BMM to verify facility-specific engineering models as required under 40 CFR 98.94(c)(2). As finalized in today's rule, an owner or operator may, without submitting and receiving approval from the Administrator, use BMM in 2011 for verifying facility-specific engineering models. Owners and operators wishing to extend the use of BMM beyond December 31, 2011 for apportioning model verification must submit a request for approval to the Administrator by October 17, 2011. As explained in Section II.A of this preamble, the BMM extension provisions do not impose an end date: for example, they do not state that extensions are limited to 2012. A facility wishing to apply for BMM for both 2012 and 2013 should include both years in its request. EPA does not anticipate approving the use of BMM beyond the time that EPA promulgates a final rule with alternative methodologies (*i.e.*, January 1, 2014).

EPA only received a small number of requests, as compared to the number of facilities expected to report under subpart I, to use BMM to comply with the apportioning model verification requirements in 40 CFR 98.94(c)(2) during 2011. For this reason EPA has concluded that while some facilities are unable to meet the requirements for apportioning model verification, the problem is limited. Therefore, EPA believes that the BMM process, which considers individual facilities'

<sup>16</sup> See footnote 4.

<sup>17</sup> See footnote 4.



circumstances, is an appropriate mechanism for addressing concerns with this aspect of the rule through 2013.

EPA appreciates the alternative apportioning method to accomplish verification provided by one commenter. The Agency would like to work with the commenter to better understand the details of the method. In addition, EPA also understands that the industry will be working to develop alternative apportioning approaches as part of the development of alternatives to the recipe-specific factor method. EPA plans to undertake a comprehensive evaluation of those alternatives. The Agency may consider whether to propose an alternative approach for apportioning model verification in the future.

#### 4. Summary of Comments and Responses on Abatement System Uptime

Although EPA's proposal did not include either a request for comment on the final subpart I provisions for monitoring abatement system uptime or a proposal for alternative methodologies, EPA received comments from four entities on the abatement system uptime provisions. In general, commenters asserted that facilities do not currently track uptime as required by the rule. These commenters proposed an alternative methodology for monitoring and calculating uptime based on the fraction of the time the abatement system is operating during the reporting year, as opposed to based on tracking time in which gas is flowing per the final subpart I requirements.

The comments that EPA received on abatement system uptime are outside the scope of the rule. Because EPA did not propose an alternative methodology for monitoring abatement system uptime, EPA is not taking action at this time to amend the requirements in the final subpart I provisions. However, the Agency intends to review concerns about the existing requirements for monitoring abatement system uptime and evaluate the alternative methodologies suggested by commenters. EPA may consider whether to propose an alternative approach to monitoring and estimating uptime for abatement systems in the future.

If a facility wishes to calculate and report controlled fluorinated GHG and N<sub>2</sub>O emissions from the use of abatement systems, and they are unable to meet the subpart I requirements for monitoring abatement system uptime, then they can use and/or apply for the use of BAMM. As finalized in today's rule, owners or operators may use

BAMM for any parameter that cannot reasonably be measured according to the monitoring and QA/QC requirements of subpart I without submitting a request to and receiving approval from the Administrator through December 31, 2011. Owners and operators wishing to extend the use of BAMM to estimate emissions that occur beyond December 31, 2011 must submit a request to the Administrator no later than October 17, 2011 and receive approval from the Administrator. It is important to note that if a facility uses BAMM to comply with the requirements to monitor uptime, then the facility must estimate its emissions using the abatement system uptime calculation methodologies and equations in subpart I (e.g., Equation I-15 of subpart I), but may use alternative means of estimating the inputs to those equations.

### III. Statutory and Executive Order Reviews

#### A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

#### B. Paperwork Reduction Act

This action does not impose any new information collection burden. These amendments do not make any substantive changes to the reporting requirements in the subpart for which amendments are being proposed. The amendments to the reporting requirements reduce the reporting burden by allowing reporters to use default values instead of recipe-specific values for the three reporting years (2011, 2012, and 2013). In addition, this final rule extends two of the deadlines in the subpart I provisions related to best available monitoring methods. The Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing regulations, 40 CFR part 98, subpart I (75 FR 74774, December 1, 2010), under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060-0650. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

#### C. Regulatory Flexibility Act (RFA)

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of these amendments on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of these rule amendments on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the rule on small entities." 5 U.S.C. 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule.

As part of the process for finalization of the subpart I rule (75 FR 74774, December 1, 2010), EPA undertook specific steps to evaluate the effect of that final rule on small entities. Under that final rule for subpart I, EPA assessed the potential impacts of the final requirements on small entities using a sales test, defined as a ratio of total annualized compliance costs to firm sales. The results of that screening analysis, as detailed in the preamble to the final rule for subpart I, demonstrated that there are no significant impacts to a substantial number of small entities. The results of that analysis can be found in the preamble to the final rule (75 FR 74774).



The rule amendments will reduce the burden for the largest semiconductor manufacturing facilities by providing flexibility during the first three years of compliance. In addition, the rule provides additional flexibility to those facilities that are using and/or applying for the use of best available monitoring methods by extending two deadlines. The action does not impose any new requirements on regulated entities.

#### *D. Unfunded Mandates Reform Act (UMRA)*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538, requires Federal agencies, unless otherwise prohibited by law, to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Federal agencies must also develop a plan to provide notice to small governments that might be significantly or uniquely affected by any regulatory requirements. The plan must enable officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates and must inform, educate, and advise small governments on compliance with the regulatory requirements.

This action does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. Thus, the rule amendments are not subject to the requirements of section 202 and 205 of the UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. Facilities subject to the rule include only manufacturers of microcomputers, semiconductors, photovoltaic devices, liquid crystal display units, and micro-electro-mechanical systems. None of the facilities known to undertake these activities is owned by a small government. Therefore, this action is not subject to the requirements of section 203 of the UMRA.

#### *E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132.

These amendments apply directly to facilities that use and emit fluorinated GHGs in the manufacture of certain electronic devices. They do not apply to governmental entities because no government facilities undertake these activities. This regulation also does not limit the power of States or localities to collect GHG data and/or regulate GHG emissions. Thus, Executive Order 13132 does not apply to this action.

Although section 6 of Executive Order 13132 does not apply to this action, EPA did consult with State and local officials or representatives of State and local governments in developing subpart I promulgated on December 1, 2010. A summary of EPA's consultations with State and local governments is provided in Section VIII.E of the preamble to the 2009 final Part 98 (74 FR 56371).

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). The rule amendments would not result in any additional requirements beyond what is currently required in 40 CFR part 98 subpart I. Thus, Executive Order 13175 does not apply to this action.

Although Executive Order 13175 does not apply to this action, EPA sought opportunities to provide information to tribal governments and representatives during the development of subpart I promulgated on December 1, 2010. A summary of EPA's consultations with tribal officials is provided in Sections VIII.E and VIII.F of the preamble to the 2009 final Part 98 (74 FR 56260) and Section IV.F of the preamble to the 2010 final rule notice for subpart I (75 FR 74814).

#### *G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks*

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This action is not subject to Executive Order 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

#### *H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use*

This action is not subject to Executive Order 13211 (66 FR 28355, May 22,

2001), because it is not a significant regulatory action under Executive Order 12866.

#### *I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law No. 104–113 (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rulemaking does not involve technical standards. Any technical standards that are required under subpart I were already included in promulgation of the final subpart I provisions on December 1, 2011 (75 FR 74774). Therefore, EPA is not considering the use of any voluntary consensus standards in this action.

#### *J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment because it is a rule addressing information collection and reporting procedures.

#### *K. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA),

generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the U.S. prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective on September 30, 2011.

Mandatory Reporting of Greenhouse Gases: Changes to Provisions for Electronics Manufacturing (Subpart I) to Provide Flexibility

#### List of Subjects in 40 CFR Part 98

Environmental Protection, Administrative practice and procedures, Air pollution control, Monitoring, Reporting and recordkeeping.

Dated: September 16, 2011.

**Lisa P. Jackson**,  
Administrator.

For the reasons stated in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

#### PART 98—[AMENDED]

- 1. The authority citation for part 98 continues to read as follows:

*Authority:* 42 U.S.C. 7401, *et seq.*

#### Subpart I—[Amended]

- 2. Section 98.93 is amended by revising paragraph (a)(2)(ii) introductory text to read as follows:

##### § 98.93 Calculating GHG emissions.

- (a) \* \* \*  
(2) \* \* \*

(ii) If your facility has an annual manufacturing capacity of greater than 10,500 m<sup>2</sup> of substrate, as calculated using Equation I-5 of this subpart, you must adhere to the procedures in paragraphs (a)(2)(ii)(A) through (a)(2)(ii)(C) of this section, except that you may use the procedures specified in paragraph (a)(2)(i) of this section for the 2011, 2012, and 2013 reporting years.

\* \* \* \* \*

- 3. Section 98.94 is amended by revising paragraph (a)(1) introductory text and paragraph (a)(4)(i) to read as follows:

##### § 98.94 Monitoring and QA/QC requirements.

(a) \* \* \*

(1) *Best available monitoring methods.* From January 1, 2011 through December 31, 2011, owners or operators may use best available monitoring methods for any parameter that cannot reasonably be measured according to the monitoring and QA/QC requirements of this subpart. The owner or operator must use the calculation methodologies and equations in § 98.93, but may use the best available monitoring method for any parameter for which it is not reasonably feasible to acquire, install, or operate a required piece of monitoring equipment in a facility, or to procure necessary measurement services by January 1, 2011. Starting no later than January 1, 2012, the owner or operator must discontinue using best available monitoring methods and begin following all applicable monitoring and QA/QC requirements of this part, except as provided in paragraphs (a)(2), (a)(3), or (a)(4) of this section. Best available monitoring methods means any of the following methods specified in this paragraph:

\* \* \* \* \*

(4) \* \* \*

(i) *Timing of request.* The extension request must be submitted to EPA no later than October 17, 2011.

\* \* \* \* \*

[FR Doc. 2011-24364 Filed 9-26-11; 8:45 am]

BILLING CODE 6560-50-P

#### FEDERAL COMMUNICATIONS COMMISSION

##### 47 CFR Part 64

[CG Docket No. 03-123; WC Docket No. 05-196; WC Docket No. 10-191; FCC 11-123]

##### Internet-Based Telecommunications Relay Service Numbering

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** In this document, the Federal Communications Commission (Commission) adopts rules to improve assignment of telephone numbers associated with Internet-based Telecommunications Relay Service (iTRS). These rules specifically address Video Relay Service (VRS), which allows individuals with hearing and speech disabilities to communicate using sign language through video equipment, and IP Relay, which allows these individuals to communicate in text using a computer. The final rules

set forth in this Order reflect the objectives laid out in the iTRS Toll Free Notice to promote the use of geographically appropriate local numbers, while ensuring that the deaf and hard-of-hearing community has access to toll free telephone numbers that is equivalent to access enjoyed by the hearing community.

**DATES:** Effective October 27, 2011 except for §§ 64.611(e)(2), 64.611(e)(3), 64.611(g)(1)(v), 64.611(g)(1)(vi), and 64.613(a)(3), which contain information collection requirements that have not been approved by OMB. The Federal Communications Commission will publish a document in the **Federal Register** announcing the effective date of the rules that require OMB approval.

**ADDRESSES:** Interested parties may submit PRA comments identified by OMB Control Number 3060-1089 by any of the following methods: *Federal e-Rulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.

• *Federal Communications*

*Commission's Web Site:* <http://www.fcc.gov/cgb/ecfs/>. Follow the

instructions for submitting comments.

• *E-mail:* Parties who choose to file by e-mail should submit their comments to [PRA@fcc.gov](mailto:PRA@fcc.gov). Please include CG Docket No. 03-123; WC Docket No. 05-196; WC Docket No. 10-191 and OMB Control Number 3060-1089 in the subject line of the message.

• *People with Disabilities:* Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: [FCC504@fcc.gov](mailto:FCC504@fcc.gov) or phone: 202-418-0530 or TTY: 202-418-0432.

##### FOR FURTHER INFORMATION CONTACT:

Heather Hendrickson at (202) 418-7295, Wireline Competition Bureau, Competition Policy Division. For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, send an e-mail to [PRA@fcc.gov](mailto:PRA@fcc.gov) or contact Judith B. Herman at 202-418-0214.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Report and Order in CG Docket No. 03-123; WC Docket No. 05-196; WC Docket No. 10-191; FCC 11-123, adopted and released on August 4, 2011. The complete text of this document is available for inspection and copying during normal business hours in the FCC Reference Information Center, Portals II, 445 12th Street, SW., Room CY-A257, Washington, DC 20554. The document may also be purchased from the Commission's duplicating