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DEPARTMENT OF ENERGY

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Guidelines for Voluntary Greenhouse Gas Reporting

AGENCY: Office of Policy and International Affairs, U.S. Department of Energy.

ACTION: Final rule.

SUMMARY: Section 1605(b) of the Energy Policy Act of 1992 directed the Department of Energy (DOE) to issue guidelines establishing a voluntary greenhouse gas reporting program. On February 14, 2002, the President directed DOE, together with other involved Federal agencies, to recommend reforms to enhance the Voluntary Reporting of Greenhouse Gases Program established by DOE in 1994. DOE issued interim final General Guidelines on March 24, 2005, and also on that date published a notice of availability inviting public comment on draft Technical Guidelines needed to fully implement the revised Voluntary Reporting of Greenhouse Gases Program. This notice of final rulemaking responds to public comments on the interim final General Guidelines and draft Technical Guidelines; sets forth the final General Guidelines; and announces the availability of the final Technical Guidelines.

EFFECTIVE DATE: The final General Guidelines and Technical Guidelines are effective June 1, 2006. The incorporation by reference of the Technical Guidelines is approved by the Director of the Federal Register as of June 1, 2006.

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I. Introduction

A. Background.

Section 1605(b) of the Energy Policy Act of 1992 (EPACT) directs the Department of Energy, with the Energy Information Administration (EIA), to establish a voluntary reporting program and database on emissions of greenhouse gases, reductions of these gases, and carbon sequestration activities (42 U.S.C. 13385(b)). Section 1605(b) requires that DOE's guidelines provide for the "accurate" and "voluntary" reporting of information on: (1) greenhouse gas emission levels for a baseline period (1987-1990) and thereafter, annually; (2) greenhouse gas emission reductions and carbon sequestration, regardless of the specific method used to achieve them; (3) greenhouse gas emission reductions achieved because of voluntary efforts, plant closings, or state or federal requirements; and (4) the aggregate calculation of greenhouse gas emissions by each reporting entity (42 U.S.C. 13385(b)(1)(A)-(D)). Section 1605(b) contemplates a program whereby voluntary efforts to reduce greenhouse gas emissions can be recorded, with the specific purpose that this record can be used "by the reporting entity to demonstrate achieved reductions of greenhouse gases" (42 U.S.C. 13385(b)(4)).

In 1994, after notice and public comment, DOE issued General Guidelines and sector-specific guidelines that established the Voluntary Reporting of Greenhouse Gases

Program for recording voluntarily submitted data and information on greenhouse gas emissions and the results of actions to reduce, avoid or sequester greenhouse gas emissions. The 1994 General Guidelines and supporting documents may be accessed at <http://www.eia.doe.gov/oiaf/1605/guidelns.html>. The Guidelines were intentionally flexible to encourage the broadest possible participation. They permit participants to decide which greenhouse gases to report, and allow for a range of reporting options, including reporting of total emissions or emissions reductions or reporting of just a single activity undertaken to reduce part of their emissions. From its establishment in 1995 through the 2004 reporting year, 417 entities, including utilities, manufacturers, coal mine operators, landfill operators and others, have reported their greenhouse gas emissions and/or their emission reductions to EIA.

On February 14, 2002, the President directed the Secretary of Energy, in consultation with the Secretary of Commerce, the Secretary of Agriculture, and the Administrator of the Environmental Protection Agency, to propose improvements to the current section 1605(b) Voluntary Reporting of Greenhouse Gases Program. These improvements are to enhance measurement accuracy, reliability, and verifiability, working with and taking into account emerging domestic and international approaches.

On May 6, 2002, DOE published a Notice of Inquiry soliciting public comments on how best to improve the Voluntary Reporting of Greenhouse Gases Program (67 FR 30370). Written comments were received from electric utilities; representatives of energy, manufacturing and agricultural sectors; Federal and State legislators; State agencies; waste management companies; and environmental and other non-profit research and advocacy organizations. DOE

held public workshops in Washington, D.C., Chicago, San Francisco and Houston during November and December of 2002 to receive information and hear the views of interested persons. In addition, the U.S. Department of Agriculture sponsored two workshops in January 2003 to solicit input on the accounting rules and guidelines for reporting greenhouse gas emissions in the forestry and agriculture sectors. These workshops explored in greater depth many of the issues raised in the Notice of Inquiry and addressed in the written comments.

On December 5, 2003, DOE proposed revised General Guidelines (68 FR 68204). A public workshop was held on January 12, 2004, to discuss that proposal and to receive public comment. Approximately 200 persons attended the workshop. In addition, over 300 written comments were received by the close of the public comment period on February 17, 2004.

DOE published interim final revised General Guidelines on March 24, 2005 (70 FR 15169), and, in a notice published in the *Federal Register* on the same day, made available for public comment the draft Technical Guidelines necessary to fully implement the revisions to the Voluntary Program (70 FR 15164). DOE sponsored a public workshop on these revised guidelines on April 26 and 27, 2005, and USDA and DOE co-sponsored another workshop on May 5, 2005. In response to public comments, DOE extended the period for comments on the revised guidelines by 30 days to June 22, 2005. Ultimately, DOE received over 90 written comments, totaling over 1000 pages. All written comments and transcripts of the public workshops are available on the web and can be accessed at: <http://www.pi.energy.gov/enhancingGHGregistry/>. On September

19, 2005, DOE published a notice in the Federal Register delaying the effective date of the interim final guidelines until June 1, 2006 (70 FR 54835).

DOE now publishes final General Guidelines and announces the availability of final Technical Guidelines that are incorporated by reference in the General Guidelines. The revised General and Technical Guidelines are designed to enhance the measurement accuracy, reliability and verifiability of information reported under the 1605(b) program and to contribute to the President's climate change goals. The key elements of the revised guidelines remain the same as those present in the interim final General Guidelines:

- Enable larger emitters to register reductions if they provide entity-wide emissions data and can demonstrate they achieved entity-wide emission reductions that contribute to the President's goal of reducing the greenhouse gas emissions of the U.S. economy.
- Provide for simplified procedures for small emitters to report and to register reductions.
- Provide for simplified reports from entities that do not want to register their reductions.
- Encourage companies and other reporting entities to report at the highest level.
- Require participants to ensure the accuracy and completeness of their reports, and encourage independent verification.
- Allow participants to report and register reductions achieved internationally.

Based on the framework set forth by the interim final guidelines and the various improvements made in response to the public comments received, today's final revised guidelines will enhance:

- Measurement accuracy by creating a ranking system for methods to calculate emissions, incorporating the best available inventory methods, and enabling more sources to be covered;
- Reliability by creating a more systematic approach to reporting, stressing inventories and entity-wide reporting; and
- Verifiability by creating a more transparent reporting system for emissions and reductions, requiring recordkeeping and encouraging independent verification.

The Secretary of Energy has approved issuance of this final rule.

B. Process for implementing the guidelines.

The General Guidelines set forth in this notice and the Technical Guidelines incorporated by reference will go into effect on June 1, 2006. In the near future, EIA intends to make available for public review and comment draft forms for collecting the data covered by these guidelines, including the Simplified Emissions Inventory Tool (SEIT) referenced in the guidelines. After taking into account any public comments it receives and complying with the requirements of the Paperwork Reduction Act of 1995, EIA anticipates that final forms will be issued before the end of 2006. In addition, EIA will be developing the software necessary to permit electronic reporting and the creation of an automated and widely accessible data base. EIA does not anticipate completing the

necessary software until mid- 2007. If time and resources permit, EIA may conduct cognitive testing of beta versions of the reporting software. Should EIA conduct such testing, EIA will solicit potential participants via a public notice, postings to its website, or some other means. According to the forms and software schedule currently anticipated by EIA, the revised guidelines will be used to govern the 2007 reporting cycle. Until then, entities interested in reporting under the program during the 2006 reporting cycle should use the existing guidelines and forms.

II. Overview of Major Changes Made in Response to Comments

The public comments received by DOE expressed considerable support for the emphasis of the revised guidelines on entity-wide reporting on all greenhouse gas emissions, including the added requirements imposed on entities that are seeking to register reductions. There was also substantial support for DOE's efforts to enhance the quality, consistency and credibility of the emission inventories and reductions being reported. The comments, however, raised a number of concerns regarding the potential burdens of reporting under the revised guidelines, possible incompatibilities with various existing reporting programs or protocols, and the limitations on reporting certain types of emission reductions, especially those occurring outside the boundaries of the reporting entity. While the basic framework of the guidelines remains the same, DOE has made a number of changes designed to address these concerns, and has adopted many of the specific recommendations made during the comment period.

To reduce the potential burdens of reporting under the revised guidelines, DOE's final guidelines:

- Enable entities that have their reports independently verified or that certify their use of higher quality inventory methods to file less detailed reports;
- Increase the ratings of some commonly used methods for estimating emissions;
- Enable reports on non-U.S. emissions to be consolidated regionally or globally (as long as U.S. data is kept separate); and
- Clarify the flexibility available to reporters that wish to avoid or minimize the complexities of accounting for changes in carbon stock or other provisions.

To increase the compatibility of the revised guidelines with various existing reporting programs and protocols, DOE's final guidelines update its references to existing protocols and update the emission factors drawn from such protocols; provide an exception in section 300.5(b) for participants in EPA's Climate Leaders or DOE's Climate VISION who may wish to use base periods that end as early as 2000; and attempt to increase the alignment of various definitions and methods with those used by other existing programs.

To expand the opportunities for reporting offset emission reductions, DOE's final guidelines, among other things: (1) add new action-specific methods for demand-side management programs, the substitution of fly ash for cement by concrete mixers, and anaerobic digestion of waste at agricultural facilities and wastewater treatment plants; (2) enable multiple reporting entities to register portions of the offset reductions achieved by a single other entity, as long as the other entity complies with all of the requirements for registration and has entered into an agreement with each of the reporting entities; and (3)

permit the accelerated reporting of carbon stock increases expected to occur on land that is being reforested, restored and permanently protected.

DOE has not adopted the recommendation of commenters who advocated that DOE mandate participation in the 1605(b) program because such a mandate is beyond the statutory authority of DOE.

III. Discussion of Public Comments and the Final Revised Guidelines

This section of the Supplementary Information discusses the issues raised by the public comments on the interim final General Guidelines and the draft Technical Guidelines and any changes to the guidelines that DOE has made in response to the comments.

A. Implementation schedule

A few comments suggested that DOE consider a delay in the start of the revised program or a phased implementation of the new requirements. DOE does not consider either a delayed or phased implementation of the revised guidelines to be necessary or practical. Starting the program in calendar year 2007 should give most reporters sufficient time to prepare to meet the requirements of the new program. If individual reporters require additional time, they may delay their own participation. Entities that are unable to meet all of the requirements for registration may simply choose to meet only the requirements for reporting under the program until such time as they are prepared to meet all of the requirements for registration. Another available option would be to take more time to complete the entity's first or second annual reports. For example, an entity could decide to submit its report on 2006 emissions during 2008, rather than by the 2007 deadline for reports that are to be included in EIA's first public report on 2006 emissions

(likely to be issued in late 2007 or early 2008). Entities may submit reports on prior year emissions and emission reductions at any time.

B. Process for updating or amending the guidelines

DOE intends to review and, if necessary, update the guidelines approximately every three years, although exceptional circumstances may require amendment of the guidelines at other times. Modifications to either the General Guidelines or the Technical Guidelines will be subject to public notice and comment. Some commenters noted that this public process might be too cumbersome and time consuming for the adoption of routine updates to the many emission factors and protocols cited by the guidelines. To address to this concern, DOE has modified some provisions of the Technical Guidelines to direct reporters to use the most current version of certain government-sponsored or consensus-based factors, methods and protocols.

C. Distinction between reporting under the program and registering reductions

The revised guidelines set forth the requirements for all reporters under the 1605(b) program as well as requirements that must be met by only those reporters that are seeking to register emission reductions (see section 300.1(b) and (c) of this rule for a description of the requirements for reporting and registering emissions and reductions). More specifically, while some new requirements are imposed on all reporters by the revised guidelines, the requirements for entity-wide reports and use of high quality emission inventory and reduction methods are imposed only on those entities that are seeking to register reductions. The distinct requirements for reporting under the program and for registering reductions are key to achieving DOE's objective of enhancing the overall quality and credibility of the reductions documented by the program, while at the same

time preserving most of the flexibility available to reporters under the original program guidelines.

Some commenters recommended that the distinction between reporting under the program and registering emission reductions be eliminated, which would enable all reporters to receive the same level of recognition, regardless of whether or not they met the entity-wide reporting requirements. DOE believes that the elimination of this distinction would significantly diminish the incentive for large emitters to improve the overall quality of their reports by undertaking the more costly activities associated with emission inventories and entity-wide assessments of reductions, which are required for registration.

In addition to objecting on policy grounds to the distinction between reported registered reductions and other reported reductions, one commenter argued that in the absence of express authorization, there is no legal basis in section 1605(b) for changing from a unitary system of reporting to a two-tier system that distinguishes between two types of reported emissions and reductions. Other commenters contended that because section 1605(b) expressly includes reductions from plant closings among the information that entities may report under the program, DOE may not exclude such reductions from the reductions that can be registered under the revised guidelines.

DOE rejects the comments arguing that DOE may not distinguish among different types of reported emissions and reductions within EIA's database because there is no express authority for such differentiation in section 1605(b). Section 1605(b) broadly charges DOE with issuing guidelines, after opportunity for public comment, for the

“voluntary collection and reporting of information on sources of greenhouse gases.” 42

U.S.C. 13385(b)(1). Further, the guidelines must include:

procedures for the accurate voluntary reporting of information on-- (A) greenhouse gas emissions [starting with a statutorily-prescribed baseline period and annually thereafter]; (B) annual reductions of greenhouse gas emissions and carbon fixation achieved through any measures, including [a list of such measures]; (C) reductions in greenhouse gas emissions achieved as a result of—(i) voluntary reductions; (ii) plant or facility closings; and (iii) State or Federal requirements; and (D) an aggregate calculation of greenhouse gas emissions by each reporting entity.

42 U.S.C. 133385(b)(1)(A)-(D) (emphasis added).

Nothing in the statute limits the information on sources of greenhouse gases reported under the program to that described in section 1605(b)(1)(A)-(D). Rather, the information described in (A) through (D) is the minimum information that may be reported under DOE’s procedures. While the text of section 1605(b) does not specifically address the question of whether DOE may create categories of reported greenhouse gas information within the EIA database, DOE’s procedures must provide for the accurate voluntary reporting of information. One of the goals of registration under the final revised guidelines is to enhance the accuracy and reliability of greenhouse gas emissions and reductions information. Thus, the text of section 1605(b), read in its entirety, supports DOE’s view that establishment of a category of registered emissions for emissions and reductions that meet certain requirements for entity-wide reporting is implicitly authorized by the statute.

DOE also rejects the comment that because section 1605(b) expressly includes reductions from plant and facility closings among the information that entities may report under DOE’s procedures, DOE may only establish categories of reported information that

include reductions from plant and facility closings. DOE's textual analysis stated above in rejecting the argument that DOE may not establish a two-tiered reporting system applies here as well. Nothing in the statute limits DOE's authority to go beyond the minimum information categories in section 1605(b)(1)(A)-(D), and the requirement that DOE's procedures provide for the accurate voluntary reporting of information is implicit authorization for DOE to establish a system of registration that enhances the accuracy and reliability of information reported on an entity-wide basis.

Several commenters suggested that the revised program guidelines should include a summary of the guidelines' requirements for reporting and for registering emissions and reductions. In response, DOE is providing a summary of the requirements in section 300.1 of today's General Guidelines. The requirements for reporting and registering emissions and reductions are described in the following sections of this Supplementary Information.

1. Reporting under the program.

Each reporter under the program must be an "entity," as defined in the guidelines and must file an entity statement. Reporters not intending to register emission reductions must, at minimum, meet the entity statement, record keeping, and certification requirements set forth in sections 300.5(f), 300.9, and 300.10, respectively. They may choose to report their emissions and/or their emission reductions on an entity-wide basis or for selected elements of their entities, selected gases or selected sources. Emission inventories for any year back to 1990 may be reported, and emission reductions may be reported for any year back to 1991, relative to base periods of one to four years, ending no earlier than 1990. All reporting entities, whether or not they intend to register

reductions, must use the emission inventory and emission reduction calculation methods specified in the Technical Guidelines. For example, as discussed in section III.K.8. of this Supplementary Information, the guidelines now provide for the reporting of the emissions and reductions associated with chlorofluorocarbons (CFCs), although such reductions are not eligible for registration. In the future, DOE may revise the guidelines to add methods that permit the reporting and, in some cases, the registration of reductions associated with other gases. While entities that do not intend to register reductions need not ensure that their emission inventories achieve a weighted average quality rating of 3.0 or higher (a requirement that is discussed in section III.J.1 below), they must calculate and report the weighted average quality rating of any emission inventories they do report. In most situations, entities not registering reductions may choose an emissions intensity, absolute emissions or generic action-specific method to calculate the emission reductions they report. However, in those situations where a special calculation method is provided, such as sequestration, the sale of distributed energy, or an action-specific method, the entity must use the appropriate method provided in the Technical Guidelines. Entities not intending to register reductions may also report (but not register) offset reductions achieved by third parties outside their boundaries as long as such reductions are reported separately and calculated in accordance with methods specified in the guidelines. The third party that achieved these reductions must agree to their being reported as offset reductions, and must also meet all of the other minimum requirements of reporting under the program, including the provision of an entity statement, the maintenance of records, and necessary certifications as stipulated in sections 300.9 and 300.10.

2. Registration requirements.

Entities that intend to register reductions must meet a number of additional requirements, although these requirements differ depending on whether the entity is a large or small emitter.

To be eligible for registration, a reduction must have been calculated using a base period ending no later than 2002, unless the entity has committed under the Climate Leaders or Climate VISION programs to reduce its entity-wide emissions relative to a base period that ends earlier than 2002, but no earlier than 2000.

In order to register reductions, large emitters must submit entity-wide emission inventories that meet or exceed the minimum quality requirements specified in section 300.6(b) and the Technical Guidelines. Any registered reductions must be based on entity-wide assessments of annual changes in net emissions, determined in accordance with sections 300.7 and 300.8 and the Technical Guidelines. They must also meet the entity statement and certification requirements specified in sections 300.5 and 300.10.

Small emitters must also submit emission inventories that meet minimum quality requirements and base their registered reductions on assessments of annual changes in net emissions, but small emitters may restrict these inventories and assessments to a single type of activity, such as forest management, building operations or agricultural tillage, rather than covering all of their entity's emissions. Small emitters must also submit entity statements, certify the accuracy of their reports and meet other requirements of reporting and registering.

Both large emitters and small emitters that have met the requirements for registering their own reductions may also register offset reductions achieved by other entities, as long as they have an agreement with the third party to do so and these third

parties have met all of the requirements for registration. Small emitters that serve as aggregators may register offset reductions without reporting on their own emissions. Entities that report offset reductions achieved by very small emitters (those typically emitting less than 500 metric tons of CO₂ equivalent emissions per year) as a result of demand management or other programs that reduce greenhouse gas emissions, may register such reductions as long as they are calculated in accordance with the action-specific method identified in section 300.8(h)(5).

D. Entity definitions, boundaries and statements

Most of the comments on these provisions of the interim final guidelines were generally supportive, although a few significant concerns were raised and a number of specific changes were recommended.

1. Entity definition.

Several commenters urged DOE to require entities to report at their highest level of aggregation within the United States, while other commenters urged DOE to provide entities even more flexibility in how they define themselves for the purpose of reporting under the program. The final guidelines retain the basic approach put forward in the interim final General Guidelines: entities must have a legal basis and are encouraged – but not required -- to report at their highest level of aggregation within the United States. If an entity chooses to report at a lower level of aggregation, the reporting entity must have a legal basis and must be defined in a way that is consistent with the management structure of the parent company or organization.

Section 300.2 of the interim final rule defines “entity or reporting entity” as the whole or part of any business, institution, organization or household that is recognized as

an entity under any U.S. Federal, State or local law that applies to it; is located, at least in part, in the United States; and whose operations affect U.S. emissions of greenhouse gases. Some commenters argued that the “legally distinct entity” test is too inflexible and urged DOE to abandon the test. One stated that electricity providers may have different reporting options due to differences in State regulation or the absence of such regulation. The commenter recommended revising the definition to allow an entity to consist of a set of corporate business and other organizational units that comprise a single business activity, even though they may not be legally distinct. Another commenter stated that the definition of “entity” would pose a problem for global corporations that are legally structured by product line, rather than by country. A large industry association did not criticize the substance of DOE’s definition of “entity or reporting entity,” but rather offered drafting guidance that it considered would better accomplish DOE’s intent. It also suggested a separate definition of “reporting entity.”

After considering the comments, DOE has retained the requirement that an entity that reports under the 1605(b) program must be recognized as an entity under a U.S. Federal, State or local law. In light of changes to the provisions for reporting non- U.S. emissions (discussed elsewhere in this Supplementary Information), DOE does not believe the definition of “entity” in the final guidelines will pose a problem for global corporations. While not necessarily agreeing with many of the criticisms of the interim final guideline definition of “entity or reporting entity,” DOE found the suggested drafting improvements to be helpful and has included several of them in revised definitions for the terms “entity” and “reporting entity.” These changes include increased emphasis on the coverage of government bodies, agencies or other institutions,

which DOE always intended to be encompassed by the broad definition of entity included in the guidelines.

2. Entity boundaries--general

The organizational boundaries of reporting entities largely determine which emissions and sources are covered by the entity's reports. DOE's interim final General Guidelines encourage entities to use financial control as the primary basis for determining the organizational boundaries of the reporting entity. While the interim guidelines encourage the use of financial control as the basis for setting organizational boundaries, they permit entities to use other methods, such as equity share or operational control, as long as they are explained.

Boundary definitions are important because they determine what emission and emission reductions a particular reporting entity may assume responsibility for when reporting under the program. As a voluntary reporting program, however, 1605(b) boundaries do not determine the legal rights of reporting entities to emissions or emission reductions. They are used only as the basis for DOE recognition of any registered reductions reported under the program. The comments received by DOE on these provisions of the guidelines were generally supportive of DOE's approach, although some encouraged even more flexibility. No changes have been made to the provisions included in the interim final guidelines.

Financial control encompasses all buildings, facilities, lands, vehicles and equipment that are wholly owned by the entity or in which the entity has a controlling financial interest. Conversely, it usually does not include buildings, facilities, lands, vehicles and equipment that are wholly owned by a different entity or in which another

entity has a controlling financial interest. However, financial control would exist if an entity has a long-term lease or other long-term agreement that gives it effective control over capital investment and operational decisions.

An alternative method for determining entity boundaries is equity share, where more than one entity has a financial interest in a particular facility or emission source, and each of the entities takes responsibility for reporting only a portion of the facilities emissions and reductions. Operational control, where an entity controls the day-to-day operations of facility or source, but does not exercise long term financial control might also be an option under certain circumstances. If either equity share or operational control is chosen as the method for determining boundaries, the reporting entity must inform the other entities that share responsibility for particular sources of its intention to report under the 1605(b) in order to ensure that the sources emissions or reductions are not double-counted under the program. Finally, the General Guidelines have been modified to provide further guidance regarding the coverage of partially-owned or leased sources, and sources that are neither owned nor leased by the reporting entity .

3. Entity boundaries -- U.S. and non-U.S. emissions.

The interim final guidelines permit entities to define their entity so as to include operations, and their associated emissions, located outside of the United States. They also permit certain non-U.S. entities to be the source of offset emission reductions, as long as they meet all of the requirements of the revised guidelines. The interim final General Guidelines would allow entities to both report and register emissions and emission reductions occurring outside of the United States, subject to certain requirements. One of these requirements is that non-U.S. emissions and reductions must

be reported separately from U.S. emissions and reductions. DOE has clarified the guidelines to indicate that this does not mean that the U.S. and non-U.S. emissions and reductions must be submitted in separate reports. Under the final guidelines, non-U.S. emissions and reductions must be included in one or more distinct subentities identified in the entity's report to EIA and must be separately sub-totaled before being considered as part of the entity's net emission reductions qualifying for registration. Unless specifically identified by the report, EIA will presume that all non-U.S. reductions are governed, at least in part, by national or international greenhouse gas regulations, and that such reductions might be eligible for transfer or trading to other entities. However, reporters will not be able to register emission reductions that do not meet the requirements of these guidelines, whether or not they are eligible for transfer or trading under a foreign national or multi-national scheme.

In allowing entities to both report and register emissions and emission reductions occurring outside of the United States, the interim final General Guidelines require that emissions and reductions for each country be segregated in the report submitted to EIA. One stakeholder, a large multinational corporation, argued that this would place an undue burden on companies having operations in numerous countries, particularly where business units that provide an appropriate level of aggregation (i.e., as separate subentities) cross national borders. In the final guidelines, DOE encourages entities that wish to report or register non-U.S. activities to segregate emissions and reductions from each country in a separate subentity. However, reporters are permitted to aggregate non-U.S. emissions and reductions at regional and even non-U.S. global levels, as long as

they identify each of the countries covered and the country-specific factors used to generate their reports.

4. Entity statements.

DOE's interim final guidelines include a number of specific requirements for the contents of the entity statements to be submitted by all reporters, although the specific requirements vary somewhat depending on whether the reporter is a large or small emitter interested in registering reductions, or a reporter that is not intending to register reductions. Very few comments were received on the requirements and no significant changes have been made to the provisions concerning the entity statement.

E. Large v. small emitters

Under the interim final guidelines, "small emitters" are a special category of reporters that are exempted from certain requirements for the registration of reductions, including entity-wide emission inventories and entity-wide assessments of reductions. DOE received a substantial number of comments on these provisions. Several of these comments were critical of the exemptions and argued that small emitters deserve no special treatment. These were countered by a number of other comments that argued that the burdens on small emitters under the interim final guidelines are too onerous, and the exemptions should be expanded. After considering these comments, DOE believes that the provisions in the interim final guidelines strike the proper balance between relieving the burden on small emitters and requiring the submission of emissions information for registration. Consequently, DOE has not significantly altered these provisions of the guidelines. It should be noted that small emitters seeking to register reductions are only required to report on the emissions and reductions associated with a single, chosen

“activity,” rather than all of the entity’s activities. Finally, the guidelines continue to permit entities to use a Simplified Emissions Inventory Tool (SEIT), to be provided by the Energy Information Administration, to estimate their emissions for purposes of determining whether the entity is a small or large emitter, and for estimating the quantity of emissions excluded as de minimis. The guidelines now clearly state that the SEIT may not be used for the preparation of emission inventories.

F. Aggregators

In the interim final guidelines, DOE provides some special guidance for entities that register reductions on behalf of other entities, so-called “aggregators.” Large emitters that serve as aggregators must meet all of the requirements for registration, including submission of entity-wide emission inventories and entity-wide assessment of their emission reductions. However, entities that are small emitters can register the offset reductions of other entities and not report on any of their own emissions or reductions, although such small emitters would have to submit an entity-statement and an estimate of their total emissions indicating that they qualified as a small emitter. While aggregators can be either small or large emitters, DOE believes that most are likely to be small organizations or companies that would qualify as small emitters. Some aggregators, such as trade associations, might report on behalf of large emitters, but the potential benefits of such indirect reporting by large emitters are limited because essentially the same data and certifications would have to be provided to DOE, whether the entity reported directly or through an aggregator. DOE received some requests for clarification of these requirements, but none of the comments suggested major changes.

G. Other definitions

The interim final General Guidelines, and the Glossary accompanying the draft Technical Guidelines, define terms used in the guidelines. These definitions were the focus of considerable comment, and many comments offered specific suggestions for changes. Others recommended the addition of new definitions of terms or, in some cases, the transfer of a definition that appeared in the Glossary to the definition section of the General Guidelines. A few comments noted differences between terms and definitions used in the DOE guidelines and comparable terms and definitions used in other protocols for the reporting of greenhouse gas emissions. While DOE has attempted to minimize such differences, DOE has concluded that in some situations, it is necessary to use a new term or define a term in a way that differs from the usage or definition of the term used by other programs. For this reason, DOE urges reporters and other users to carefully review the definitions contained in both the final General Guidelines and the final Technical Guidelines.

The following sections summarize the comments received on definitions and DOE's response to the comments.

Activity of a small emitter. This term is used to define the minimum scope of reports by small emitters interested in registering reductions. It has been modified slightly to more clearly indicate that it applies to anthropogenic actions that result in emissions or sequestration.

Anthropogenic. This definition has been moved from the Glossary to the General Guidelines and has been modified to more closely parallel the definition of this term under the Climate Leaders and Climate VISION programs.

Avoided emissions. The definition of this term has been modified to enable it to encompass more types of “avoided emissions” in the future. Its practical scope is still strictly limited by the reduction calculation methods specifically identified and permitted under the guidelines. As modified, the term encompasses any emission reduction that occurs outside an entity’s boundary that results from changes in the activity of an entity, but in practice avoided emissions is still strictly limited to the emissions displaced by increases in the distribution of various types of energy that have been derived from renewable, nuclear or other low or non-emitting sources.

Carbon dioxide equivalent. A definition for this term has been added to the General Guidelines.

Carbon stocks. The definition of this term has been slightly modified to clarify its scope in the context of these guidelines, as suggested by public comment.

Climate Leaders and Climate VISION. The definitions of these programs have been modified and moved to the General Guidelines.

Direct emissions. The definition has been modified to link such emissions to sources within the organizational boundaries of reporting entities.

Distributed energy. A definition for this term has been added to the General Guidelines. The term “exported energy,” sometimes used in the interim final guidelines, is no longer used.

The definition for “entity-level reporting,” which previously appeared in the Glossary, has been deleted.

The definition of “entity statements” that appears in the Glossary has been deleted. The meaning of the term “Entity Statements” is fully described in section 300.5(d) and (e).

Greenhouse gases. The definition has been modified to more clearly identify the gases that may be the subject of reports under the guidelines.

Incidental lands. A definition for this term has been added to the General Guidelines.

Indirect emissions. The definition for this term has been modified to parallel similar modifications made to the definition of "direct emissions." The definition of "emission, indirect", which appears in the Glossary, is repetitive and has been deleted. While the indirect emissions are currently limited to those associated with the generation of energy by another entity that is ultimately used by the reporting entity, the definition leaves open the possibility that other types of indirect emissions may be added in the future.

Intergovernmental Panel on Climate Change (IPCC). The definition for the IPCC that appears in the Glossary has been modified in response to comments received.

Net emission reductions. This refers to the sum of all reductions in a given year that qualify for consideration as registered reductions. It has been only slightly modified to improve its clarity.

Offset. The definition has been modified to improve its clarity.

Registration. A definition for this term has been added to the General Guidelines.

Reporting entity. A definition for this term has been added to the General Guidelines.

Sequestration. The definition has been simplified, but its intended scope remains broad.

Source. The definition has been slightly expanded to emphasize its broad scope.

Small emitter and large emitter. Definitions for both of these terms have been added to the General Guidelines.

Start year. The definition has been simplified to improve its clarity, as suggested by public comments.

Total emissions. The definition has been modified to correct an error, as suggested by public comments.

H. Start year and first reduction year

The interim final General Guidelines provide that reporters not intending to register reductions can establish base periods as early as the 1987-1990 timeframe identified in section 1605(b) and can report reductions beginning as early as 1991. However, the interim final guidelines provide that entities intent on registering reductions must establish base periods of no more than four years that end no earlier than 2002, and may not register reductions that were achieved prior to 2003.

DOE received a number of comments on these provisions of the interim final guidelines, most of which recommended that entities be allowed to report emissions and emission reductions that occurred prior to 2002/2003. Some commenters indicated that they had made commitments under the Climate Leaders or Climate VISION programs

that used base periods that ended prior to 2002 and that they were able to report the progress made toward the achievement of these commitments prior to 2003. In response to these comments, DOE has modified the guidelines to permit entities that have made a commitment to reduce entity-wide emissions under the Climate Leaders or Climate VISION to establish base periods that end as early as 2000. This exception would permit most, but not all participants in these programs to use the same base periods used in such voluntary programs in their reports to DOE under the 1605b program.

DOE believes that even with this exception, the program will continue to be focused on recent and future efforts to reduce greenhouse gas emissions and consistent with providing an indication of the reporting entities' contributions to the President's goal of reducing greenhouse gas emissions intensity of the U.S. economy by 18 percent between 2002 and 2012. The revised General Guidelines still permit reporting of historical activity, however, and therefore fully comply with the statutory requirements of section 1605(b).

I. Electricity factors and benchmarks

The interim final guidelines establish several different kinds of emission factors and benchmarks intended to approximate the emissions associated with electricity use, the emissions avoided as a result of reduced electricity demand, or the emissions avoided by increasing generation from non-emitting or low-emitting sources. For emission inventories, the interim final guidelines provide that entities should convert their electricity demand to emissions using factors supplied by DOE that would be based on the regional averages of electric sector emissions intensities. DOE stated that entities should use factors that were derived from the national average emissions intensity of the

electric sector as a whole for calculating reductions associated with reduced electricity demand or increased generation from non-emitting or low-emitting sources. DOE indicated that the national average emissions intensity was considered to be a better indicator of the actual emissions likely to be displaced by reduced demand or increased generation.

Many commenters recommended making the factors used for inventories and for calculating reductions the same, although some supported the DOE's rationale for proposing different factors. Some advocated regional factors as better indicators of the emissions and reductions associated with specific sources. Others advocated national factors as good indicators of actual emissions and reductions, and as a way of simplifying the reporting burden of entities that operated in multiple regions. Some utilities recommended that the benchmark used for estimating avoided emissions be based on the regional averages of fossil-fired generating plants, which they argued would be a better indicator of the emissions being displaced. Other utilities recommended that entities be permitted to choose either a system-specific benchmark, based on the emissions intensity of marginal plants, or a regional average.

After careful consideration of the comments, DOE has adopted the recommendation of some utilities to base the factors used to estimate the emissions avoided by reduced electricity demand or increased generation from non-emitting or low-emitting sources on the regional average emissions intensities of fossil-fired generating plants, with the proviso that no regional value may exceed 0.9 metric tons of CO₂ per megawatt hour (MWH). The maximum value of 0.9 metric tons per MWH is designed to ensure that all utilities have a clear incentive to build new capacity that is at least as

efficient as the most efficient coal-fired generating plants. DOE chose not to provide generators with the flexibility to choose national or regional values, or to develop their own, system-specific values in order to avoid the significant self-selection bias that would result from such flexibility.

The definition of the U.S. regions to be used in calculating the indirect emissions associated with electricity use and avoided emission benchmarks is an important technical issue. In the draft Technical Guidelines, DOE indicated its intent to use North American Electric Reliability Council (NERC) regions as the basis for the indirect emission factors used in preparing emission inventories. Some comments suggested that NERC subregions, especially for the western United States would be more appropriate. Others urged DOE to consider the use of EPA's eGRID regions. In choosing among these and other options, DOE considered whether: (1) it would be possible to provide meaningful values for all possible reporting years (the earliest possible reporting year is 1987) based on readily available public data; (2) reporters would be able to readily determine which factor applied to specific facilities or operations; and (3) the resulting factors would provide a good approximation of the indirect emissions associated with electricity use or demand reductions in a particular region. After careful consideration, DOE concluded that basing indirect emission factors on either NERC or eGRID regions would not achieve one or more of these three objectives. For example, because the NERC and eGRID regions cut across state lines, it will likely be difficult for reporters to determine which region is applicable to a specific facility.

Consequently, DOE decided to base these factors on the electric sector emission intensities of state-based regions that approximate the most current NERC regions and, in

the case of the western United States, appropriate subregions. The purpose of these state-based regions is to approximate the actual emissions associated with the electricity supplied to users, while also utilizing data that is readily available for all reporting years and boundaries that are well recognized by potential reporters. EIA will determine the most appropriate State groupings for the development of the indirect and avoided emission factors based on NERC regions and applicable subregions, as defined in June 2006. Generally, those states that are split among two or more NERC regions or subregions should be assigned to the state grouping that contains most of the state's population. One possible grouping that will be considered by EIA is: (1) New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire and Maine; (2) New Jersey, Delaware, Pennsylvania, Maryland, West Virginia, Ohio, Indiana and Michigan; (3) Illinois and Wisconsin; (4) Missouri, Kentucky, Virginia, Arkansas, Tennessee, North Carolina, South Carolina, Louisiana, Mississippi, Alabama and Georgia; (5) Florida; (6) Texas; (7) Oklahoma and Kansas; (8) North Dakota, South Dakota, Nebraska, Minnesota and Iowa; (9) Colorado, Utah, Nevada, Wyoming and Montana; (10) New Mexico and Arizona; (11) Oregon, Washington and Idaho; (12) California; (13) Hawaii; and (14) Alaska. EIA will provide factors for 1999 and subsequent data years and will periodically (e.g., every three to five years) update these factors to reflect what they determine to be significant and lasting changes in the electric sector emissions intensity of the established state groupings. EIA will also provide a set of values to be used for all data years prior to 1999.

Several comments focused on the treatment of transmission and distribution (T&D) losses in the calculation of the factors used to represent the emissions associated

with electricity demand (to be included in emission inventories) and reductions in electricity demand (to be included in emission reduction calculations). Some noted that T&D losses were not included in the emission factors widely used by the Climate Leaders program. Others favored the inclusion of such T&D losses in the factors representing emissions associated with electricity demand and reductions. DOE decided to continue to include such losses in the factors used to estimate both the inventories and reductions associated with electricity use. By including such losses, these factors will provide a better indicator of the emissions resulting from electricity demand. Entities that wish to include both generation and T&D losses in their reporting of indirect emissions to the Climate Leaders program may do so, as long as they note that their reports include both types of losses, based on the factors provided by DOE.

J. Inventories

The interim final guidelines provide detailed guidelines for the conduct of emission inventories. DOE received a large number of comments that touched on emission inventory guidelines in some way. Most comments were generally supportive of the framework for emission inventories set forth in the General Guidelines and the more detailed provisions of the draft Technical Guidelines. However, some commenters raised concerns regarding the start year and de minimis requirements of the interim final guidelines, while others suggested various improvements to the methods cited or the quality ratings assigned to these methods.

In the final guidelines, an emissions inventory is an accounting of an entity's actual emissions (direct, indirect and sequestered) during a specified year. An emissions inventory provides, by itself, a useful record of an entity's actual emissions over time, but

it also serves as one of the inputs necessary for the calculation of the base values used in determining emission reductions. For this reason, an emissions inventory is usually a major element of an entity's first report under the program.

Since emission inventories are a critical part of calculating emission reductions, all reports under the revised program should include some kind of inventory. Entities that do not intend to register reductions and small emitters may restrict their inventory data to those sources or activities that will be the focus of future emission reduction calculations. However, large emitters that intend to register reductions must submit entity-wide emission inventories and may exclude from such inventories only de minimis emissions. Any entity that wishes to register reductions must ensure that its annual inventories meet the minimum quality requirements specified in the guidelines

The following sections summarize the major comments that addressed the emission inventory requirements of the interim final guidelines and DOE's responses to the comments.

1. Requirement for entity-wide inventories with a quality rating of at least 3.0.

The interim final guidelines established a quality rating system for emission inventories. Reporters could choose among a range of different methods for measuring or estimating the emissions from specific sources. Each different method was assigned a rating of A, B, C or D and each of these ratings was assigned a numerical value from 4.0 (for A rated methods) to 1.0 (for D rated methods). Entities that were intent on registering reductions would be required to complete emission inventories that had a quantity-weighted quality rating of at least 3.0.

Most comments received by DOE supported the emphasis of the interim final guidelines on quality entity-wide inventories. The final rule retains the requirement for a 3.0 quality rating for the emissions inventories that large emitters must submit as a prerequisite for registering reductions. DOE believes that methods given an A or B rating are sufficiently accurate to serve as the basis for entity-wide reporting, while methods given a C or D rating should be used only for those gases or sources that represent a small share of the reporting entity's total emissions. Several commenters suggested that the A and B methods available for specific sources or industrial sectors are too burdensome and will make it difficult for some entities to prepare inventories that meet the 3.0 quality rating. DOE has made some modifications to the ratings for the available methods to ensure that a cost-effective and practical A-or B-rated method is available for every emissions source.

As the table below demonstrates, three very different companies with diverse emission profiles could meet the 3.0 quality rating threshold using an inventory approach specific to their company. Company A is a large electric utility, with a vast preponderance of emissions attributable to stationary fossil fuel combustion. As a result, this company may use lower rated (and lower cost) methods for estimating emissions from its smaller sources, such as fleet vehicles and sulfur hexafluoride used as an insulator on transmission lines. Similarly, a landfill operator could achieve the quality-rating threshold by ensuring that it uses "B" or better-rated methods for estimating methane emissions from the landfill. Company C, a large Federal defense contractor, is able to offset its lower rated estimates of emissions from mobile sources with higher rated

methods for estimating emissions from stationary combustion at its lone manufacturing facility.

Source	Emissions Metric Tons CO ₂ e	Method Grade	Emissions Weighted Grade
Company A (Large Utility)			
<i>Direct Emissions</i>			
Stationary Combustion	300,000	A=4	300,000*4 = 1,200,000
Fleet Vehicles	10,000	C=2	10,000*2 = 20,000
Sulfur Hexafluoride on T&D System	500	C=2	500*2 = 1,000
<i>Indirect Emissions</i>			
Electricity in Commercial Offices	1,000	B=3	1,000*3=3,000
Total	311,500	3.92	1,224,000/311,500 = 3.92
Company B (Landfill Operator)			
<i>Direct Emissions</i>			
Methane from Decomposition	50,000	B=3	50,000*3 = 150,000
Heavy Duty Vehicle Fuel Use	200	B=3	200*3 = 600
<i>Indirect Emissions</i>			
Electricity Consumption	50	A=4	50*4 = 200
Total	50,250	3.00	150,800/50,250 = 3.00
Company C (Large Federal Defense Contractor)			
<i>Direct Emissions</i>			
Vehicle Fuel Use	500	C = 2	500*2 = 1,000
Stationary Combustion at Manufacturing Facility	800	A = 4	800*4 = 3,200
<i>Indirect Emissions</i>			
Electricity in Commercial Offices	9,000	B = 3	9,000*3 = 27,000
Total	10,300	3.03	31,200/10,300=3.03

DOE has modified the guidelines to enable entities that obtain independent verification to simplify their inventory reports and to permit entities that certify their use of only A or B methods to forego the reporting or calculation of a quantity-weighted quality rating. Finally, DOE has made some clarifying changes to emphasize that prior year inventories may be modified only to correct significant errors, and that entities may choose at any time to modify the methods used to prepare their current and future year

inventories. DOE hopes that such modifications lead to improvements in inventories over time.

2. De minimis exclusion from entity-wide emission inventories.

Numerous comments proposed changes to the provision of the interim final General Guidelines that allows entities to exclude from their entity-wide emission inventories up to 3 percent of their total emissions. Many of these commenters recommended that entities be permitted to exclude up to 5 percent of their total emissions, while others proposed to permit entities to exclude certain types of sources entirely, such as motor vehicles that are not an integral part of the production process or small tracts of undeveloped land. On the other hand, a number of commenters requested that the de minimis exclusion be removed from the guidelines, and that all entities be required to inventory all of their emissions every year. Still others recommended the use of some kind of “materiality” test to determine whether or not certain emissions could be excluded. After serious consideration of all of these comments, DOE decided not to make any change in the de minimis provisions of the General Guidelines. DOE believes that the 3 percent de minimis exclusion is appropriate because a larger de minimis exclusion risks ignoring sources that could affect the assessment of entity-wide emission reductions. DOE emphasizes that it will be possible for entities to achieve an overall 3.0 quality rating with limited use of low cost, D-rated estimation methods for small emission sources. A major reason for the introduction of the quality rating system is that it gives entities the ability to complete inventories that are more comprehensive without incurring the high costs of applying high quality measurement methods to comparatively small, dispersed sources. With respect to land holdings, the guidelines do provide for the

exclusion of incidental, forested lands, as long as they are not actively managed for wood production or otherwise developed.

3. Ratings for estimation methods using default values.

The interim final Technical Guidelines contain a rating system for determining the quality of emission inventories reported under the 1605(b) program. Up to four methods are identified and rated for measuring or estimating the emissions from every source, with the highest rating being an A (worth 4 points) and the lowest a D (worth 1 point). For each distinct source, the ratings are ordinal – meaning that the best method received an A rating and the poorest method received a D. Under the interim final guidelines, this approach results in some very large disparities between the “A” methods of different sources. For some sources, where field measurement methods are not practical and estimation methods are not well developed, a method that relies on default factors is given an “A” rating because it is the best available method. In other cases, such as forest ecosystems, the use of well-researched default factors rate a “C” or “D”, unless they have been validated by independent data from the specific site and management condition. These disparities were the focus of a number of critical comments.

In response to these comments, the final guidelines have been modified to restrict “A” ratings to methodologies where computations are based primarily on values indicative of on-site conditions measured continuously or over multiple periods. In cases where no methodology qualifies for an A rating, the best method will be rated “B” and given a value of three points. Using this approach, the best methods for certain agricultural sources warrant only a B.

A related issue concerns the quality ratings given methods that rely upon default factors that have been widely reviewed and adopted by a public agency, a standards-setting organization or an industry group. The draft Technical Guidelines could have made it difficult for reporters in certain industries to receive a 3.0 quality rating or above, even though they utilized methods and factors that were generally accepted within the relevant industry as being the most practical and effective means of estimating emissions from certain sources. For example, in many cases, the draft technical guidelines provided a C rating for widely accepted default factors, even though source-specific emission measurements would be very costly or impractical. To correct this problem, the final guidelines raise certain consensus-based default factors to "B" ratings where more accurate methods are not considered cost-effective and where the default factors have been established by an industry-wide peer review process, with public documentation.

4. References to continuous emissions monitoring systems (CEMS).

A number of commenters pointed out that CEMS are not practical for many industrial applications. For such applications, mass balance or default emission factors may be the only practical options. In the oil and gas exploration and production industry, for example, estimating emissions by using measured activity data and emission factors available through government (AP-42, available at: www.epa.gov/ttn/chief/ap42/) or industry (API Compendium, available at: http://api-ec.api.org/policy/index.cfm?objectid=C79E99D5-E714-40ED-81C8C32F1492851C&method=display_body&er=1&bitmask=001001004001000000) approved methodologies is the most accurate method available and warrants a high rating.

If CEMS are used, albeit rarely, for a particular source, direct measurement is kept in the final guidelines as an A-rated option, while other methods for this source that use mass balance or default emission factors methods are also given an “A” rating, as long as they are derived from site-specific measurements.

5. Citations of protocols and emission factors developed by other organizations.

The interim final guidelines include citations to several other protocols or standards, and include a number of emission factors drawn from such protocols or standards. Numerous comments noted that some of the documents and emission factors cited in the guidelines had not been subsequently updated. Many of these comments recommended that DOE update these citations and some recommended that DOE’s guidelines direct reporters to use future updates of such protocols or standards, as they become available.

The final guidelines do include a number of updated references and emission factors, as recommended by commenters. In addition, they direct reporters to use the most current methods established by specified government agencies (EPA, USDA) or independent standards-setting organizations (IPCC) and direct EIA to periodically update forms/instructions to reflect such methods/factors. With regard to methods in other sources, the final guidelines provide that DOE will review and update, as appropriate, the guidelines periodically and in response to specific requests.

6. Options for simplifying emission reports.

A number of entities expressed concerns regarding the potential burdens of reporting detailed, entity-wide inventories and a few suggested options for reducing these burdens. In the final guidelines, DOE provides for two approaches that will enable

entities to reduce the detail of the reports submitted to DOE. First, if an entity certifies that it has used only A or B rated emission inventory methods, it need not calculate or report the quantity-weighted average quality rating of its emissions inventory. When accepted, EIA will indicate in the database that the quality rating of the inventory meets or exceeds the 3.0 level. Second, if an entity has its report independently verified, including the quantity-weighted quality rating of its inventory, it may report its inventory data at a higher level of aggregation (by greenhouse gas, rather than by source category).

7. Eliminate requirements to report emissions from biogenic sources and to report certain non-fuel uses of fossil fuels.

The interim final guidelines require the reporting of many uses of fossil fuels and a determination of whether a non-fuel use of a fossil fuel involves a sequestering, non-sequestering, or partially sequestering activity. The interim final guidelines also require the reporting of certain biogenic emissions, such as the carbon dioxide emitted by combusting ethanol in vehicles. To reduce the burdens of reporting, the final guidelines require reporters to report only anthropogenic emissions of greenhouse gases. Entities should not report biogenic emissions or non-emitting uses of fossil fuels, such as fuels used to create materials used to manufacture products.

8. Treatment of agriculture and forestry.

The draft Technical Guidelines would provide extensive new methodologies for estimating greenhouse gas emissions and carbon sequestration from the forest and agriculture sectors. A number of commenters expressed appreciation for the improvements in the draft guidelines, noting specifically the benefit of the COMET model for estimating changes in carbon stocks on agricultural soils and new advances in

estimating forest carbon. Several comments proposed improvements in the technical methods and underlying coefficients and data. Some commenters expressed concern that the methods proposed were too complex and detailed. Other commenters maintained that the methods were not adequate and included significant uncertainties that would limit their use under a potential future regulatory system.

USDA and DOE reviewed the inventory methods for forestry and agriculture in light of these comments and made changes where appropriate to reflect new information. The review noted that relatively simple inventory methods are available for virtually all of the sources and sinks in the agriculture and forest sectors. The availability of methods for all greenhouse gas emission sources and carbon sinks was important to enable entities to provide comprehensive entity-wide inventories. The review also noted that alternative methods are provided for many sources and that these alternative methods vary from the simple to the complex. The complex methods generally provide entities with the ability to reduce uncertainties. For some agricultural sources, the guidelines only provide simple default methodologies. In the draft guidelines, these methods were given an “A” rating. In the final guidelines, these methods are given a “B” rating. The explanation for these changes is explained in section J.3., above.

a. Sustainable forest management. Provisions of the draft Technical Guidelines would allow entities to report a default carbon flux value of “zero” for forestlands that are verified through third-party certification as being sustainably managed. DOE received comments questioning the credibility of certain sustainable forest certification systems and the assumption that it is “highly unlikely” that carbon stocks decline in sustainably managed forests. Other comments agreed with this assumption and recommended that

section 300.6(g)(1) be modified to clearly state that any changes in sequestration for forests managed under certified sustainable management systems are de minimis and need not be a part of entity's annual report.

The USDA Forest Service reviewed four existing certification systems and determined that while there are some differences among the major certification programs in their goals and technical details, all of the programs set high standards, have rigorous third-party audit protocols, are generally viewed as credible by many stakeholder groups, and can assure (with reasonable confidence) long-term carbon neutrality. Therefore, the final guidelines specify that any changes in sequestration for forests managed under certified sustainable management systems need not be part of an entity's annual report. All or part of an entity's forest land can be certified as being managed sustainably. If an entity chooses to use the assumption that sustainable forest lands are de minimis on part of their lands and report actual changes in carbon stocks on other lands, the entity should document that the certification of sustainability applies to the lands being considered de minimis, independent of the entity's other lands. Once an entity classifies a portion or all of its lands as sustainably managed forest, it may not report carbon sequestration on the lands categorized as sustainably managed in future reports. If a portion of certified land is sold or loses its certification, these changes must be reported to EIA and the remaining land must either be recertified or the entity must report actual changes in carbon stocks on all the affected land.

DOE received comments urging it to eliminate provisions of the interim final guidelines that require reporting of carbon stock changes on forestlands. These comments contend that the sequestration accounting requirement in section 300.6(f) is

complex, costly and intrusive. The comments further contend that detecting meaningful periodic change in large forest inventories is a daunting task, both logistically and statistically, even for entities with sophisticated commercial timberland inventories.

No changes were made to the guidelines in response to these comments. The guidelines provide three classes of methods to estimate changes in carbon stocks from forests. The guidelines provide default lookup tables, guidance on the use of models, and procedures for applying sampling techniques. In addition, the guidelines allow land that has been certified by third parties as being sustainably managed to be considered de minimis for reporting purposes. These options provide sufficient flexibility to entities in reporting changes in carbon stocks on forested land that they own or control, while maintaining consistency with overall objectives of the program for comprehensive reporting of greenhouse gas emissions and sinks. DOE notes that the guidelines do not require entities to continue to account for changes in the carbon stock that occur on land no longer owned by the entity, although the entity must ask EIA to remove from its records any carbon stock increases (or decreases) that were attributed to such lands in prior year reports.

b. Wood products. DOE received comments regarding the allocation of carbon embedded in wood products. In particular, commenters noted that manufacturers should be provided the option to register the carbon embedded in products and treat it as carbon sequestration. Under the interim final guidelines, forest landowners are responsible for reporting carbon emissions from wood products. The forest land owner can simply assume that the carbon embedded in products, such as building materials, is emitted when harvested or use one of the methods provided to estimate rates of emissions from such

wood products over time. Allowing the manufacturer of wood products to treat the manufacturing process as a sequestration activity would require that the forest land owner treat the harvesting activity as an emission. The broader implication of this interim final guideline provision is that all transfers (sales of wood products) would need to be tracked and reported by entities as either emissions or sequestration. DOE and USDA viewed this option as overly complex and one that would require a significant amount of additional record keeping and reporting. The final guidelines maintain the original provisions for the reporting of carbon embedded in wood products.

c. Inclusion of forest sequestration. One commenter recommended that terrestrial sequestration be removed from the inventory guidelines for large entities. They asserted that by requiring large entities to report changes in terrestrial carbon stocks, the guidelines place the federal government squarely in the middle of private land use and property rights issues, and establish complex, costly, and intrusive regulatory burdens for no apparent benefits in terms of carbon sequestration. This comment was not adopted. DOE believes that the proposal would undermine the entire objective of encouraging comprehensive reporting. It is important to note that the program is voluntary, not mandatory. Also, the program places no legal restrictions on landowners regarding carbon sequestered on their lands, even if that carbon has been reported to the 1605(b) program.

d. Accelerated reporting of carbon stock changes on permanently restored land. Normally, entities may include in their annual assessments of emission reductions only those changes in emissions or carbon stocks that occurred during the year that is the subject of the report. Comments recommended, however, that entities be permitted to

accelerate the reporting of carbon stock increases on land that was being reforested, especially if it was to be permanently restored and protected. Because of the very long term carbon sequestration and other benefits associated with such permanent restoration and protection, DOE has modified the guidelines to permit entities that have undertaken such a restoration project and established a permanent easement or deed restriction to protect the land to report, during the next reporting cycle, carbon stock increases that are equal to 50% of the total carbon stock increases expected on that land over the next 50 years. The 50% discounting of the 50-year carbon stock increases closely approximates the present value of a 50-year stream of annual benefits discounted at a rate of 3 percent per year. The sequestration occurring on such lands would still have to be reported as part of the entity's annual emissions inventory, but would be excluded from all future assessments of emission reductions.

9. Stationary source combustion.

Several changes to the "Stationary Source Combustion" part of the inventory guidelines were made in response to comments. Some were motivated by a desire to simplify the reporting process or render it more accurate. For example, the draft Technical Guidelines would have required entities to identify and report emissions from non-fuel use of fossil fuels. Several commenters felt that the requirement placed too great a burden given the small amount of potential emissions involved. While DOE has modified the guidelines to indicate that biogenic emissions and non-fuel uses of fossil fuels need not be reported, the final guidelines continue to require the reporting of all emissions for which measurement or estimation methods are identified. The draft Technical Guidelines would have required that combined heat and power (CHP) plants

assume an 80% thermal generating efficiency. The final guidelines follow the World Resources Institutes and World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol of allowing plants to enter their own estimated efficiency values. Also, the draft Technical Guidelines would not provide for the registering of avoided emissions associated with the use of coal combustion products. The final guidelines recognize fly ash use through an action-specific method.

Some changes were made to make the rating system for methods used to measure stationary combustion emissions compatible with the new procedure outlined above. The mass balance approach was raised to an “A” status for emissions from hydrogen plants and certain non-CEMS methods were given the same rating or raised to a “B” if based on regular site-specific measurements and fuel use default values derived through a consensus process. Some suggested changes, such as the proposal to treat methane from landfills as a biogenic emission, were not accepted. Here the wording of the draft Technical Guidelines was retained because DOE views the emissions of methane from landfills as anthropogenic. Only the CO₂ emissions from the combustion of landfill methane is treated as biogenic.

One commenter sought clarification on the exclusion from entity-wide inventories of carbon dioxide emissions from biomass combustion. Another wanted to ensure that non-combustion biomass oxidation was also excluded from entity-wide inventories. The DOE has revised the Technical Guidelines to clearly confirm the exclusion of these biogenic emission sources.

10. Mobile sources

One major change in the “Mobile Sources” part of the inventory guidelines was made in response to comments that specific emission factors were outdated, according to the most recent government or private industry publications. DOE has updated many of these emission factors and has revised the guidelines to provide that reporters and EIA should use to develop their inventories future updates to factors made by certain government agencies or consensus-based standards organizations. However, the final guidelines do not provide for the automatic updating of factors developed by trade groups or other industry sources, such as the American Petroleum Institute’s Compendium of Greenhouse Gas Emission Methodologies. DOE will consider updates of such industry-developed values during DOE’s planned periodic updates to the guidelines.

Another suggestion made by commenters was to exclude vehicles unless they were "integral to production." Several commenters state that it is overly burdensome for emission inventories to include mobile source related emissions where mobile sources are not an entity’s dominant greenhouse gas emitting activity. DOE disagrees with the comment that mobile sources should be excluded. While mobile source emissions may be a small share for many reporters, they may be large in absolute terms, and they are a substantial source of emissions for some entities. Therefore, the final guidelines continue to require inventories to include all vehicles within the organizational boundaries defined by the reporting entity, which would normally include all vehicles that are owned or under the financial control of the entity. DOE notes that under the final guidelines, entities are permitted to exclude such emissions as de minimis if they are less than 3% of total emissions.

DOE received comments requesting clarification on the effect on inventory quality ratings of using default emission factors versus measured data on heat content, density, or carbon content of fuel data for mobile source emissions. The draft Technical Guidelines have been revised to provide such clarification.

11. Industrial processes.

Some of the same issues that arose in the Stationary Source Combustion and Mobile Sources parts of the guidelines also appeared in the comments on the Industrial Processes part. Several commenters pointed out that CEMS methods are not appropriate or practical for many industrial applications because of cost considerations. After considering these comments, DOE has dropped CEMS as an “A” method for some industrial sources, and elevated the rating of other methods. The final guidelines allow direct measurements (for mass balance or default factors) an “A” rating if they are based on site-specific, periodic measurements. Several comments on this part of the Technical Guidelines also urged DOE to use the most recent emission factors established by other government, consensus or industry protocols. These factors have been updated and the final guidelines provide that values from government agency or consensus-based sources will be automatically updated by EIA, while updates contained in industry-developed protocols will be considered during DOE’s periodic updates to the guidelines.

The National Lime Association (NLA) recommended that the guidelines adopt its method for estimating CO₂ emissions from lime production. The NLA asserts that its method is more accurate because it relies on the specific characteristics of the lime produced (calcium oxide and magnesium oxide content) rather on default values for

different classes of lime. DOE agrees and has adopted the NLA method for the “A” rated method for estimating CO₂ emissions from lime production.

One commenter from the pulp and paper industry requested that a statement be added to the guidelines indicating that the emissions from the manufacture of lime in the Kraft pulping process are biogenic and that emissions from this source should not be included in emission inventories. The pulp and paper mill module prepared under the auspices of the Climate Change Working Group of the International Council of Forest and Paper Associations (ICFPA), which has been adopted by the WRI/WBCSD Greenhouse Gas Protocol Initiative, states that “the carbon released from CaCO₃ is biomass carbon that originates in wood and should not be included in GHG emissions totals.”* DOE agrees with this recommendation and has added the appropriate language to the Industrial Process Emissions part of the Technical Guidelines (Section 1.E.3.3).

The industry trade group noted the absence of methods for estimating methane emissions from petrochemical production and DOE has added these methods to the Industrial Process part of the Technical Guidelines.

12. Indirect emissions.

The treatment of indirect emissions under the interim final guidelines was the subject of a number of comments. Some expressed concern about the mixing of indirect and direct emissions and reductions. In response to these comments, DOE has modified the guidelines to emphasize that indirect emissions must be reported separately from direct emissions in inventories, although they are added together to determine the total emissions of a reporting entity. Direct and indirect emissions are often combined in a

* National Council for Air and Stream Improvement, Inc. (NCASI), *Calculation Tools for Estimating Greenhouse Gas Emissions from Pulp and Paper Mills*, The Climate Change Working Group of The International Council of Forest and Paper Associations, Version 1.1, July 8, 2005, p. 23.

single emission reduction calculation formula, but emission factors used for indirect emissions ensure that there is no double-counting by electricity generators and users.

Some comments were directed at the emission factors used to calculate the emissions associated with electricity use. Although some comments suggested that these emission factors exclude the losses associated with electricity transmission and distribution (T&D) losses, the final guidelines continue to include these losses because they provide a better indication of the total emissions avoided by reductions in electricity consumption.

Some commenters suggested that the owners of electricity T&D systems be required to include in their emission inventories the indirect emissions associated with T&D system losses. Because such indirect emissions would overlap with the direct emissions of some entities (that both generate and distribute electricity) and because T&D system losses are often associated the transmission of power from one system to another, DOE has decided not to require the indirect emissions associated with T&D system losses to be included in the inventories of owners of electricity T&D systems at this time. However, if an entity chooses to report (or register) the emission reductions associated with its efforts to reduce such losses, then it must calculate such reductions based on a system-wide assessment, as specified in the action-specific method provided for this purpose in the Technical Guidelines.

13. Geologic sequestration

Geologic sequestration is still an emerging field with few generally recognized standards for accounting and monitoring. As a result, several comments requested that DOE clarify and/or add information to the interim final guidelines and regularly review

work by other governments and organizations for relevant guidance. Recognizing that this is a rapidly developing and changing field, DOE will continue to monitor the development of new accounting standards for geologic sequestration and, whenever appropriate, revise the reporting guidelines accordingly. DOE also has clarified the inventory guidance for geologic sequestration in the final Technical Guidelines. For example, in response to a request that naturally occurring carbon dioxide emissions near, but unrelated to, an enhanced oil recovery field should be excluded from an entity's inventory, DOE added text specifically stating that entities may exclude emissions of CO₂ that have been demonstrated to be naturally occurring. Only emissions caused by the entity itself should be addressed in the inventory.

The monitoring approaches for geologic sequestration in the draft Technical Guidelines were the subject of a number of comments. One commenter argued that to avoid excessive monitoring, entities should be able to use technical, site-specific monitoring approaches developed in response to rules by relevant regulatory agencies. Accordingly, DOE has added text to permit other monitoring plans that have been agreed to by a relevant Federal or state agency, if these plans have specific provisions for tracking the amount of carbon dioxide being re-released from the storage site.

Another commenter objected to the requirement that reporters assume that all stored carbon dioxide will be re-emitted to the atmosphere and to include all such future emissions in the current inventory year. According to this commenter, reporters have enough understanding of reservoir characteristics to generate a reasonable prediction of future losses.

In October 2005, the Intergovernmental Panel on Climate Change (IPCC) published its *Special Report on Carbon Dioxide Capture and Storage*, which includes a comprehensive discussion of available monitoring techniques for geologic sequestration. Noting that all monitoring options recommended by the IPCC are based on site monitoring, DOE revised the final guidelines to also require site-specific monitoring to be an element of any acceptable method. For entities that do not wish to report reductions associated with geologic sequestration, DOE has retained the requirement that they assume that all injected carbon dioxide will be reemitted over time and report such emissions in the current year. However, if an entity wishes to report reductions associated with geologic sequestration, they must use a method that includes an active monitoring component, as required in the final guidelines.

K. Reductions

The interim final guidelines identify five categories of methods for calculating emission reductions: emissions intensity, absolute emissions, changes in carbon stocks, avoided emissions and action-specific methods. They also specify the use of an integrated method -- combining emissions intensity and avoided emissions -- by electricity and other generators of distributed energy that were increasing the quantity of energy they had generated and exported to other entities.

DOE received a large number of comments on its guidelines for calculating emission reductions, some of which raised broad concerns. One commenter urged DOE to focus emission reductions calculations on either emissions intensity or absolute emissions, and to exclude emission reductions resulting from increases in carbon stock, energy-related avoided emissions or other action-specific methods until a comprehensive

project accounting framework is established. On the other hand, a number of other commenters urged DOE to retain and expand the provisions for recognizing reductions from sequestration, avoided emissions and additional action-specific methods. While DOE agrees that most reporters can and should rely primarily on emissions intensity or absolute emissions methods to assess annual changes in their emissions, we also see a need for the retention of other emission reduction calculation methods in order to permit the reporting and registration of reductions associated with certain special sources and actions.

A few commenters continued to urge DOE to permit the registration of reductions resulting from stand-alone projects, especially when undertaken to reduce emissions outside the boundaries of the reporting entity (offset reductions). Other commenters, however, supported DOE's emphasis on an assessment of entity-wide emission trends, rather than on the results of individual projects. While DOE recognizes that entities are undertaking a wide range of actions that can reduce its emissions of greenhouse gases, DOE believes that the enhanced program, to be consistent with the objectives established by the President's Global Climate Change Initiative of February 2002, should focus on the net result of such actions on an entity's overall emissions and sequestration, and its contribution to the goal of reducing the nation's emissions intensity. Therefore, DOE has not changed the requirement that large emitters calculate their registered reductions on the basis of an entity-wide assessment. It has, however, modified the guidelines to permit the reporting and registration of additional types of action-specific reductions, and to emphasize that all reporters have the option to continue to report, but not register, the emission reductions resulting from a wide array of action-specific efforts.

1. Selecting appropriate reduction calculation methods.

The interim final guidelines emphasize that entities must choose among the five categories of reduction calculation methods identified in the guidelines. Some of the public comments received by DOE indicated that there was some confusion regarding the degree of choice available to individual reporters. DOE provides the following guidance to clarify how it views reporters' selection of calculation methods under the final guidelines. The appropriate calculation methods a reporter uses should be determined largely by the characteristics of the reporting entity and its emission sources and sinks. Most reporters will find it advantageous, where feasible, to use an emissions intensity metric as the basic calculation tool for determining the emission reductions achieved by most or all of the entity. Changes in absolute emissions may be used as an alternative, as long as the economic output associated with the emissions is not declining. If output is flat or increasing, the reductions calculated using the absolute emissions method should always be equal to or less than the reductions calculated using an emission intensity method. For all terrestrial sequestration, entities should assess the annual changes in carbon stock. Entities that generate electricity, steam, hot or chilled water for distribution to other entities should use the energy-related avoided emissions method or the integrated method to assess the reductions associated with such generation. Finally, entities should use the action-specific methods only in situations specifically addressed by the methods provided in section 300.8(h)(5), or situations where no other methods are applicable.

2. Base periods and base values.

The interim final guidelines describe how entities should establish and use base periods and base values in the process of calculating and reporting emissions reductions. They also define the circumstances that might require some entities to adjust their base values or, under certain circumstances, establish new base periods and base values.

In all cases, the final year of the chosen base period must immediately precede the first year of reported or registered reductions. Some commenters suggested that entities be permitted to establish base periods that ended one or more years prior the first reduction year. DOE did not adopt this suggested change because it believes that all reductions should be based on an uninterrupted record of emissions from the base period onward.

Several commenters expressed concerns about the provisions covering revisions to base periods, base values, and methods due to boundary changes, such as acquisitions, divestitures, mergers, and the outsourcing or insourcing of emissions-producing operations. Some commenters argued that assigning a different base period for acquired operations other than that used by the original entity would impose a significant administrative burden for some reporters. Other commenters suggested that requiring an entity to adjust its base value to include the emissions of an acquisition would make that entity responsible for any changes in the acquisition's emissions that had occurred between the base period and the year of acquisition.

DOE has retained a degree of flexibility in the final guidelines regarding whether an entity must recalculate base values and change base periods. The Technical Guidelines establish some general principles in section 2.3.3 regarding whether and how base values

and base periods should be adjusted to reflect boundary changes. However, a reporting entity may incorporate a new acquisition into an existing base value only if the reporting entity has all of the required emissions and other data for the established base period. If this historical data do not exist, the reporting entity must establish a new base period for the acquired subentity. Whenever base values and base periods are adjusted, the reporting entity must include a discussion of the rationale for the adjustment in the report it submits to EIA.

Several stakeholders expressed concern that they will be required to recalculate reductions and resubmit prior year reports to reflect boundary changes. DOE has clarified §300.8(f) of the final rule to indicate that resubmission of previous years' reports revised to reflect boundary changes occurring in subsequent years is not required. In general, the final guidelines provide that previously reported or registered emission reductions may not be altered unless such an alteration is necessary to correct a significant reporting error.

One stakeholder proposed providing a grace period of 18 months before a reporter is required to adjust base values or base periods to reflect a boundary change to allow time for emissions accounting systems to be reconfigured. DOE recognizes that such boundary changes can pose significant problems for reporters regarding the integration of emissions accounting systems and, therefore, it has amended the guidelines (section 300.5(g)) to provide for a grace period of at least 18 months before such changes must be reflected in 1605(b) reports. For boundary changes occurring after May 31 of a particular calendar year, base values would not have to be adjusted until the report that is submitted for the following calendar year. For example, for an acquisition made after May 31,

2005, a reporter would not be required to make any adjustments to its base value or values until it reports on its 2006 activities.

3. Enabling reporters to choose more stringent base values.

One commenter requested that DOE allow reporters to establish base values that are more stringent than those derived from historical performance. While it is unlikely that many reporters would take advantage of such flexibility, DOE concedes that using a more stringent base value could be desirable under some circumstances (e.g., where another voluntary program establishes an emission reduction target based on improvements compared to an industry-wide benchmark). Therefore, DOE has revised the guidelines to permit selection of a more stringent base value, provided the reporter demonstrates that the base value is indeed more stringent than that required by the relevant method specified by the guidelines.

4. Emissions intensity.

In 2002, the President set a goal of reducing U.S. emissions intensity by 18 percent in 2012, relative to 2002. Establishing methods for tracking the contribution that individual entities are making to this national goal is one of the key objectives of the revised guidelines for the 1605(b) program. Thus, the interim final General Guidelines and draft Technical Guidelines define a method for calculating emission reductions based on declines in emissions intensity.

Most comments were generally supportive of the guidelines for calculating reductions based on emission intensity, including the flexibility to use either physical or monetary methods for calculating reductions. Some commenters, however, opposed the registration of reductions based on declining emissions intensity because it would permit

entities with rising output to qualify for registered reductions even though their net, absolute emissions might be increasing. Others pointed out that since most industries experienced declining emissions intensity over time, as a result of technological and productivity improvements, emission reductions derived from declines in emissions intensity do not necessarily reflect any new efforts to reduce emissions by the reporting entity. Still others appeared to oppose such reductions because they implicitly exclude reductions attributable to declining output. After considering the comments, many of which raised some valid concerns, DOE has nonetheless concluded that emissions intensity remains the best approach to measuring emission reductions because it avoids adverse economic impacts on entities. DOE also has concluded that the basic methodology set forth in the interim final guidelines is valid.

5. Absolute emissions.

The interim final guidelines provide a method for calculating reductions from declines in absolute emissions, as long as the output associated with these emissions had not declined. The requirement for output to be level or increasing was the focus of most of the comments received on these provisions of the guidelines. Some companies stated that this requirement would prevent them from registering reductions that were recognized under other reporting programs. Several companies also raised concerns about the apparent exclusion in the draft inventory guidelines of emission reductions associated with plants or other facilities that are closed.

Since a key objective of the revised program is to give special recognition to reductions that contribute to the national goal defined by the President, DOE has retained the provision that permits the registration of reductions calculated using the absolute

emissions method only if the economic output associated with such reductions is not declining. However, since some plant closings can contribute to reduced emissions intensity or to declines in absolute emissions, even if the output of an entity is stable or increasing, DOE has struck the language in the inventory guidelines that appeared to exclude such emission reductions from the reductions calculation. In addition, DOE has modified the guidelines to more clearly permit entities to report (but not register) absolute emission reductions when output is declining.

One entity suggested that DOE permit entities to adjust the base value used in calculating absolute emission reductions to reflect the prior year emissions of acquisitions, even if the data available for the acquired entity does not match the base period used by the reporting entity. DOE has not accepted the suggestion because it would lead to base values that were no longer tied to specific base periods. In such circumstances, an entity should establish a new sub-entity to account for each acquisition. The new sub-entity could have its own unique base period and base value.

6. Changes in carbon stocks.

The draft Technical Guidelines allow entities to register 1/100th of the base year/base period carbon stocks on preserved forestland plus any incremental carbon stocks gained in the reporting year. Comments received on the draft guidelines were critical of this provision, citing it as arbitrary and stating that only increases (or decreases) in existing carbon stocks should be eligible for registration; that an easement in and of itself is not an adequate basis for assessing avoided emissions; and that the approach is not scientifically valid.

In response to these comments, USDA conducted a further review of this provision and has determined that preserved forests are not static with respect to carbon stocks. Vegetation growth and mortality will occur, and the balance between those two factors will determine whether the net carbon flow is positive or negative. Preserved forests are likely to be affected by natural disturbances that affect growth and mortality rates, and, therefore, carbon stocks can be altered both positively and negatively by such changes. USDA also concluded that there is no technical basis for the registration of 1/100th, or any fraction, of the base period carbon stocks in preserved forests. DOE has eliminated from the final guidelines the provision providing special treatment of forest preservation. Entities reporting and registering forest preservation should follow the methods described in section 1.I.2 of the Technical Guidelines.

Another commenter expressed concern that DOE had not made a clear enough distinction between increases in carbon sequestration and emission reductions achieved through other forestry-related activities. Detailed methods for calculating changes in carbon storage as well as methods for calculating emission reductions from other forestry-related activities are included under individual sections of the Technical Guidelines. The distinction between these multiple methods of reducing atmospheric carbon loadings is included in multiple sections of the General Guidelines and most specifically in Part I of the Technical Guidelines.

7. Avoided emissions.

The interim final guidelines provide a method for calculating the emissions avoided by generating electricity, steam, or hot/chilled water from non-emitting or low-emitting sources of energy and distributing these secondary forms of energy to users. To

estimate the quantity of emissions that would be avoided by the distribution of electricity generated from non-emitting or low-emitting sources, the draft Technical Guidelines used a "benchmark" value based on the average emissions intensity of the U.S. electricity generating sector, approximately 0.6 metric tons of CO₂ per megawatt hour (MWH) of power generated.

Numerous comments were received on the avoided emissions method and the benchmark value for distributed electricity in the draft Technical Guidelines. Several commenters noted that the national average intensity of the U.S. electricity generating sector is not necessarily a good indicator of the emissions avoided by the distribution of non-emitting or low-emitting generation. They stated that regional averages of fossil-fired generation are likely to be a better indicator, because such averages exclude hydro-electric, nuclear and other sources of power that tend to be fully utilized, regardless of changes in electricity usage or the availability of other forms of generation. DOE has decided to change the avoided emissions benchmark for electricity to the regional fossil-fired averages for the electric sector, but the final guidelines impose a maximum value of 0.9 metric tons of CO₂ per MWH. State-based regions that approximate appropriate NERC regions and subregions, together the specific factors to be used by reporters, will be specified by EIA. This maximum value, which approximates the average emissions intensity of fossil-fired electric power generating plants in the United States, will provide an incentive for all utilities to build new generating capacity at least as efficient as the most efficient coal-fired generating technologies.

Other commenters expressed concerns regarding assignment of all reductions associated with avoided emissions to the generator, rather than to the buyer or ultimate

user. DOE has not changed this aspect of the guidelines, but it has attempted to provide a workable mechanism by which the generators of avoided emissions can permit registered reductions to be registered by buyers or users, if they so choose.

Some commenters recommended that DOE expand the concept of avoided emissions to encompass other areas where conventional fossil-fuels are being replaced by fuels generated from low-emitting and largely renewable resources. The interim final guidelines provide an action-specific method for recognizing the emissions avoided by the productive use of methane recovered from landfills. The final guidelines provide additional action-specific methods to recognize the emissions avoided by the expanded production of methane from anaerobic digestion of waste at agricultural facilities and wastewater treatment plants. These methods are described in more detail in the action-specific methods section that follows. During the development of these guidelines, DOE also considered the possibility of changing the treatment of ethanol used in the transportation sector so as to shift the recognition for the emission reductions that result from increased ethanol supply and use from vehicle-owners to producers. Recognition of producers might encourage such companies to participate and report on all of their emissions, including those associated with ethanol production. While the guidelines continue to consider the emissions from ethanol combustion as biogenic and the responsibility of users, DOE may reconsider the treatment of ethanol in the future.

Several commenters also pointed out that actions taken by an entity affecting the emissions of one or more other entities are not limited to the export or import of energy products. These commenters provided examples such as the reuse of fly ash as a substitute for Portland cement in concrete, which displaces emissions from the

manufacture of Portland cement, and post-consumer materials recycling, which reduces emissions associated with the manufacture of materials from virgin resources. Many of these actions are not conducive to the use of entity-wide methods to estimate emissions reductions. DOE has modified the definition of “avoided emission” to make it more clearly applicable to these other types of avoided emissions, and it has included an action-specific method for estimating reductions associated with fly ash reuse as a substitute for Portland cement in concrete. DOE may consider in the future additional action-specific methods for estimating reductions of indirect emissions from such activities as manufacturing of energy efficient products and increased recycling of certain materials.

With respect to the increased manufacturing of energy efficient products, DOE may seek to develop methods capable of quantifying the net emission reductions realized by very small emitters as a result of the efforts of some manufacturers to increase the average efficiency of their products to levels well above Federally-mandated efficiency standards. Such very small emitters are very unlikely to participate directly in the 1605(b) reporting program, so doublecounting of such emission reductions would not be likely.

For recycled materials, DOE may seek to develop methods capable of quantifying the net emission reductions that result from increased use of recycled materials in new products, taking into account the full life cycle emissions associated with production, recovery, transport and reprocessing of the affected materials, while also ensuring that the double registration of reductions associated with increased recycling is prevented.

8. Action-specific methods.

The interim final guidelines provide for the use of action-specific methods under a number of different circumstances. A generic method is provided that was designed to be used in estimating the reductions that resulted from a variety of different types of actions, such as fuel switching or efficiency investments. In addition, several other methods included in the interim final guidelines are designed to estimate the reductions resulting from specific types of actions, including landfill gas recovery, coal mining gas recovery, geologic sequestration, and transmission and distribution losses. It was DOE's intent in the interim final guidelines to permit reporters not planning to register reductions to use action-specific methods wherever they are applicable. Reporters intending to register reductions, however, are permitted to use action-specific methods only when none of the other four methods are applicable. As a result of this limitation, it was expected that entities registering reductions would generally use action-specific methods only for sources or activities for which they were specifically designed. In general, entities were strongly encouraged to report on an entity-wide basis and use emissions intensity or absolute emission methods as their primary means of estimating their reductions.

DOE received a large number of comments on these provisions of the interim final guidelines. Many of these comments urged DOE to expand the opportunities to register emission reductions estimated using action-specific (or project-based) methods. Several reporters argued that project-based reporting should be an accepted basis for registered reductions, noting that project reporting is contemplated by section 1605(b) and much of the greenhouse gas emissions trading being conducted in the U.S. is project-based. Other comments urged the addition of action-specific methods capable of

estimating reductions from other types of actions, such as anaerobic digesters or demand-side management programs.

The final guidelines retain the provisions of the interim final guidelines that strictly limit the use of action-specific methods as the basis for registered reductions, while not restricting the use of other action-specific methods by reporters not interested in registering reductions. The experience under the existing 1605(b) reporting program has shown that the relationship between individual projects and an entity's overall emissions is ambiguous, because so many factors other than emission reduction projects conducted by the entity can affect these emissions. DOE believes that allowing registration of project-based reductions would invite criticism similar to that directed at the existing 1605(b) program, namely that it allows entities to "cherry-pick" activities that achieve emission reductions while obscuring the overall emission performance of the organization. However, DOE recognizes that data on project-level emission reductions can be useful in disseminating information on effective ways to reduce emissions of greenhouse gases, and DOE has clarified the final guidelines to place more emphasis on the two ways that reporters can highlight individual actions that they believe have contributed to their improved greenhouse gas emissions profile. First, they can quantify the effects of specific actions or projects by reporting, but not registering, reductions using a reporter-defined action-specific method; and, second, they can provide anecdotal information regarding emission reduction activities in the summary description of actions taken to reduce emissions required by §300.8(i).

Section 300.8 (h)(5) of the interim final guidelines states that an entity-wide reporter may use the action-specific approach to estimate emission reductions for actions

within the entities boundaries only if it is not possible to measure accurately emission changes based on changes in emissions intensity, changes in absolute emissions, changes in carbon storage, or changes in avoided emissions as outlined in section 300.8, paragraphs (h)(1) through (h)(4). In the draft Technical Guidelines accompanying the interim final General Guidelines, DOE identified several specific actions for which it will be difficult to accurately measure emission reductions using the methods in section 300.8 paragraphs (h)(1) through (h)(4). They are: coalmine methane recovery, landfill methane recovery, geologic sequestration, and transmission and distribution improvements.

a. Integrating action-specific emission reductions with other emission reductions.

Comments sought clarification on the integration of action-specific emission reductions with those measured using methods set forth in section 300.8, paragraphs (h)(1) through (h)(4) of the interim final General Guidelines. Entities may add action-specific reductions to their net entity-wide registered reductions if they meet all other requirements of these guidelines for registration and estimate action-specific reductions using methods contained in the Technical Guidelines. Among the constraints the final Technical Guidelines place on the use of action-specific reductions are: (1) The emissions affected by the action may not appear in any other subentity or entity-wide emission reduction calculation submitted by the reporter; and (2) emission reductions using this calculation may not be reported by any other entity on an entity-wide or sub-entity basis.

b. Expanding the range of action-specific reductions. A number of comments sought expansion of the range of action-specific reductions. Some commenters cited the language of section 1605(b) that directs the Secretary of Energy to establish procedures for the accurate voluntary reporting of information on annual reductions of greenhouse

gas emissions and carbon fixation achieved through any measures, including fuel switching, forest management practices, tree planting, use of renewable energy, manufacture or use of vehicles with reduced greenhouse gas emissions, appliance efficiency, methane recovery, cogeneration, chlorofluorocarbon capture and replacement, and power plant heat rate improvement. Elsewhere in this Supplementary Information (see II. C. above, on the distinction between reporting under the program and registering reductions), DOE addresses comments that question DOE's authority under section 1605(b) to establish separate classes of reporting in the database maintained by EIA. That discussion is relevant here. DOE reiterates that entities may report reductions resulting from a broad range of specific actions under the revised guidelines; it is only registered reductions that limit the use of action-specific methods to those reductions which cannot be captured by one of the other emission reduction calculation methods.

Other comments sought to expand the range of action-specific reductions allowed to be registered. DOE was persuaded that methods for several of these actions should be added to the guidelines. These include a method for measuring action-specific reductions from anaerobic digestion of waste at agricultural facilities or wastewater treatment plants. DOE views this method as similar to and a logical extension of methods for estimating reductions from coal mine and landfill gas recovery. DOE was also persuaded that the volume and magnitude of reductions attributable to residential and commercial demand-side management and other programs, and the limited likelihood that individual residential and small commercial end-users would be participants in the program, justified a method for electric power generators and others that implement such programs to register emissions reductions that can be reliably attributed to those efforts. However,

the final guidelines provide that reporting entities must certify that the program was directed at residential or other very small emitters (such as small businesses or other entities that the reporter estimates typically emit less than 500 metric tons of CO₂ annually). The new action-specific method established in the Technical Guidelines attempts to ensure that the reductions reported are only those that can be attributed to the specific effects of the demand-side management or other program evaluated, and not to other market or regulatory changes. DOE has also provided a new action-specific method for calculating reductions associated with increased use of flyash by concrete mixers.

Several commenters sought inclusion of action-specific methods for registering reductions from increases in the manufacturing and sale of energy efficient products such as home appliances and automobiles, and others requested a method for registering reductions from increased materials recycling. Although DOE has not adopted these additional methods, DOE expects in the future to solicit comment on methods for calculating reductions from energy efficient products and materials recycling and will then consider incorporating suitable methods in the Technical Guidelines.

c. Changes to proposed action-specific methods. Several comments offered alternative methods for calculating action-specific reductions from landfill gas recovery and transmission and distribution improvement. For landfill gas recovery, commenters recommended methods placing a greater reliance on modeled emissions. However, DOE did not adopt these recommendations because it is concerned they would add uncertainty and reduced transparency of action-specific reductions from this source. Similarly, a request for quantifying emission reductions for displacing coal or oil with landfill gas by

a landfill gas purchaser was not adopted because those reductions will be captured in changes in the purchaser's emission intensity, and inclusion would result in double counting. DOE, however, has adjusted the method for estimating reductions from transmission and distribution improvements to emphasize changes in system-wide transmission and distribution emission intensity.

Comments related to geologic sequestration were also provided, focusing on monitoring and ownership. One commenter asked whether available monitoring methods only apply to enhanced oil recovery, or to all geologic sequestration projects. DOE clarified that the monitoring methods should be used for all types of geologic sequestration. Another commenter argued that site-specific monitoring should be required of all available monitoring options, including those based on estimating future losses of carbon dioxide after injection has been completed. The argument is that the data and methodologies for undertaking such estimates of future losses are insufficient. In October 2005, the IPCC published a *Special Report on Carbon Dioxide Capture and Storage*, which includes a comprehensive discussion of available monitoring techniques for geologic sequestration. Noting that all monitoring options recommended by the IPCC are site-specific, DOE has revised the guidelines to also require site-specific monitoring for all of its monitoring methods. In addition, DOE has clarified its guidelines to ensure that entities may not claim offset or other types of reductions associated with the capture and sale of CO₂ unless they have an agreement with the entity that is permanently sequestering the CO₂, in accord with DOE's Technical Guidelines.

d. Ozone-depleting gases. One commenter argued for inclusion of ozone depleting gases, such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons

(HCFCs), because it would encourage recovery and destruction of these greenhouse gases. Section 1605(b) expressly permits reporting of annual reductions of greenhouse gas emissions achieved through chlorofluorocarbon capture and replacement. While these gases have radiative forcing properties, they also destroy stratospheric ozone, which may influence global climate. The IPCC has not determined definitive global warming potential (GWP) for CFCs and HCFCs. It has, instead, estimated these gases in broad ranges. For example, the IPCC Third Assessment Report gives the net 100-year GWP for CFC-11 as a minimum of -600 and a maximum of 3600.

Because of the development of rated methods for calculating emissions and emission reductions of ozone depleting substances would be complex and time-consuming, the final guidelines do not permit the registration of reductions of these gases. However, DOE has included an action-specific method for calculating reductions from the destruction of CFCs that have been captured or replaced, and these reductions may be reported under the 1605(b) program. DOE may in the future solicit comment on methods for calculating reductions of other ozone depleting substances and will consider incorporating suitable methods in the Technical Guidelines.

9. Estimating reductions from energy generation and distribution.

For electricity generators, the interim final guidelines provide a single formula that integrates the emissions intensity and avoided emissions methods. DOE considered this integrated formula to be necessary to provide the same opportunity for recognition to any generator of additional electric power, regardless of the characteristics of that entity's base period generation. Some utilities objected to the use of the integrated formula and proposed that DOE permit utilities to base the emission reduction calculations on any

decline in the entity's base period emissions intensity, regardless of whether the entity had increased its power generation. After careful consideration of these comments, DOE has decided to retain the integrated formula. Because the electricity generating sector is both very diverse and is given special recognition for emissions avoided by addition of new generation from non-emitting or low-emitting sources, the integrated formula is necessary to give all generators a roughly equal opportunity to qualify for registered reductions.

The integrated formula uses the same benchmark value used for the calculation of avoided emissions from electricity generation. In response to comments, DOE has decided to change this benchmark to the regional average emissions intensity of fossil-fired generation. This decision is described in more detail in the section on avoided emissions, above.

One commenter asserted that the method for allocating emissions to thermal and electric streams for combined heat and power (CHP) generators does not accurately reflect actual thermal efficiencies. The method included in the interim final guidelines requires reporters to assume the efficiency of the thermal component of CHP systems to be 80 percent. The final guidelines are more flexible and allow the reporter to use the actual efficiency of thermal energy generation, if known. Reporters may use a default value for thermal efficiency of 80 percent if this value is unknown.

L. Offset Reductions

The interim final guidelines provide a mechanism by which a reporting entity could register the reductions achieved by another entity that was willing to forego this recognition. To ensure that this mechanism for reporting offset reductions did not

undermine the emphasis on entity-wide reporting, the interim final guidelines require that the other entity complete annual reports that meet all of DOE's requirements and that these reports be submitted to DOE by the reporting entity.

A broad range of commenters noted that this mechanism was simply not practical for use in a number of situations, such as:

- When multiple entities are supporting the offset reductions achieved by a single entity (such as a group of utilities supporting reforestation projects on the land of single public agency, or when a number of different electric power users seek recognition for the offset reduction reductions created by a single renewable or nuclear power generator).
- When a reporting entity supports the offset reductions achieved by a large number of very small emitters, such as a utility that supports a demand-side management program that provides incentives for the purchase of energy efficient lights by homeowners.

To address these problems, DOE has made a few modifications to the offset reduction provisions of the guidelines. The final guidelines now provide an action-specific method to enable utilities to register the reductions that can be attributed specifically to the effects of utility-sponsored demand-side management programs. The guidelines also permit more than one entity to be the recipient of offset reductions from a single other entity. The assignment of registered reductions to multiple reporting entities, as offset reductions, can only be done at the time they are initially reported to EIA. In addition, DOE has made it clear that the guidelines permit other Federal agencies or even

smaller operational units, such as a wildlife refuge, to generate registered reductions that are reported by other entities as offsets.

M. Certification and Verification.

Most comments supported the need for reporting entities to certify the accuracy of their reports, although there were different views on which representatives of an entity should be required to provide such certifications and the nature of these certifications. Similarly, there was widespread support for DOE's decision to encourage, but not require, independent verification of reports, and a number of specific comments addressed how DOE should define such an independent verification.

1. Certification.

Section 300.10 of the interim final General Guidelines states that all reports must be certified by the head of household, chief executive officer, agency head, or an officer or employee of the entity who is responsible for reporting the entity's compliance with environmental regulations. DOE received comments calling for a higher level of corporate certification and others calling for more flexibility in the identity of a certifier. DOE believes that it has properly addressed the need for a high level of certification while granting sufficient flexibility to participating entities.

More narrow comments sought a definition of "reasonable steps," in section 300.10(c)(1) of the interim final General Guidelines, that a reporter must have taken to ensure emissions, emission reductions and/or sequestration are not double-counted, and asked that certification requirements on third parties that are redundant with those for reporting entities be removed to limit reporter burden. DOE has revised the final

guidelines language to address these concerns by explaining what it considers to be “reasonable steps” and by eliminating certain redundant certification requirements.

Several commenters expressed concerns that the certification requirements would discourage farmers, ranchers, and small woodland owners from participating in the 1605(b) program. DOE has included provisions for aggregators and offsets (described above) that should mitigate these concerns.

2. Independent verification.

Section 300.11 of the interim final General Guidelines states that reporting entities are encouraged to have their annual reports reviewed by independent and qualified auditors and then defines the characteristics required for an auditor to be viewed by DOE as both independent and qualified. That section also enumerates the expected scope of an independent verification.

DOE received a substantial number of comments on independent verification. Some comments expressed the view that independent verification is necessary for data credibility, and, therefore, should be required rather than encouraged. Other comments argued against requiring independent verification. DOE recognizes the value of independent verification but remains sensitive to the cost and burden it may impose on prospective program participants. DOE seeks in the final guidelines to encourage independent verification, while limiting reporter burden, by permitting reporting entities to register reductions without reporting and rating emissions estimates at the individual source or sink level if they receive independent verification that the quantity-weighted average of methods used for preparing their emissions inventory meet or exceed 3.0.

Further, DOE has extended the July 1 annual reporting deadline to September 1 for independently verified reports.

Other comments sought inclusion of additional detail on the processes and procedures that verifiers must follow when undertaking an independent verification, and expressed a desire for consistency with existing standards. DOE wishes to provide greater flexibility than could be obtained through the adoption of a single existing standard, but it also wishes its guidelines to be generally consistent with current domestic and international practices. Accordingly, the final guidelines direct independent verifiers to refer to such sources as the California Climate Action Registry Certification Protocol, the Climate Leaders Inventory Management Plan Checklist and the draft ISO 14064.3 standard when completing a verification.

DOE received comments suggesting that a separate and distinct set of rules for “accrediting” verifiers should be prepared by DOE. DOE believes this approach is too prescriptive and deterministic for a rapidly developing and evolving field of expertise. Moreover, DOE recognizes that many potential reporters may seek independent verification of data submitted to other domestic and international programs, in addition to the Voluntary Reporting of Greenhouse Gases Program, and does not wish to preclude verifiers accepted by other programs from performing an independent verification under these guidelines. Consistent with that approach, DOE has not created a new set of rules for accrediting independent verifiers; instead, the final guidelines incorporate and reference elements of the California Climate Action Registry requirements and the draft ISO 14064.3 guidance.

N. Reporting and record keeping

Section 300.9 of the interim final General Guidelines requires entities intending to register reductions to maintain adequate supporting records for at least three years to enable verification of all information reported. A number of comments voiced concern that the three-year requirement was not long enough to support the transition to a future regulatory program. The comments sought a five-year or longer record keeping requirement. Meanwhile, other comments noted the potential burden of even a three-year record keeping requirement. It was not DOE's intent to envisage the existence or design of a future regulatory regime, but rather to ensure that reports submitted to this program be verifiable for a number of years subsequent to submission. In addition, DOE believes many entities are likely to retain records beyond the period required by DOE guidelines in anticipation that there may be a regulatory program in the future. Thus, DOE was not persuaded to extend the overall record keeping requirement. However, several of the comments pointed out that such verification would require base period data that may pre-date the three year record keeping requirement. In response, DOE has extended the record keeping requirement for base period data to the duration of an entity's participation in the program.

O. Report review and acceptance process

Section 300.12 of the interim final General Guidelines states that EIA will review all reports to ensure that they are consistent with the General Guidelines and Technical Guidelines. Subject to the availability of adequate resources, EIA intends to notify reporters of the acceptance or rejection of any report within six months of receipt and sooner if feasible. If EIA does not accept a report or if it determines that emission

reductions intended for registration do not qualify, the report will be returned with an explanation of its inadequacies. The reporting entity may resubmit a modified report for further consideration at any time.

Comments indicated concern that the EIA review process would not be sufficiently rigorous in the absence of independent verification. More generally, comments sought inclusion of more detail on the review process to be undertaken by EIA. In response to these comments, DOE has included additional language on the specifics of EIA's review process.

P. Publication of General Guidelines in the Code of Federal Regulations

Several commenters claim that by publishing the General Guidelines as a rule for codification in the Code of Federal Regulations, DOE exceeded its authority under section 1605(b) to issue voluntary guidelines for reporting. In their view, the use of mandatory words in the General Guidelines is inconsistent with a voluntary program.

DOE addressed the question of publication in the Code of Federal Regulations in the preamble to the notice of interim final guidelines published on March 24, 2005 (70 FR 15176). In addition to giving reasons favoring codification, DOE related that the Director of the Federal Register had written a letter in response to a request from an interested person that stated his conclusion that it is proper for DOE to include the revised General Guidelines in the Code of Federal Regulations. DOE has placed the Director's letter in the administrative record for this rulemaking.

DOE rejects the comments contending that mandatory language may not be used in the revised guidelines, for two reasons. First, the revised guidelines are largely procedural rules, and procedural rules usually are stated in mandatory terms. Second, the

requirements in the revised guidelines do not alter the voluntary nature of the 1605(b) program. Entities, in their sole discretion, may decide to report under the Voluntary Reporting of Greenhouse Gases Program. Those who do decide to report may, again in their sole discretion, decide to seek the greater credibility that would be associated with registering their emissions and reductions. Their participation is voluntary, but if they decide to report or register their emissions and reductions, then they must abide by any requirements in the revised guidelines. This is entirely consistent with section 1605(b).

IV. Regulatory Review and Procedural Requirements

A. Review under Executive Order 12866

Today's action has been determined to be "a significant regulatory action" under Executive Order 12866, "Regulatory Planning and Review" (58 FR 51735, October 4, 1993). Accordingly, this action was subject to review under that Executive Order by the Office of Information and Regulatory Affairs of the Office of Management and Budget (OMB).

Because of new requirements associated with the revised General Guidelines and the Technical Guidelines, it is anticipated that the costs for participants to report and register reductions are likely to increase. The anticipated benefits of the new requirements include enhanced data quality associated with reported and registered reductions. The magnitude of these effects has not been assessed.

B. Review under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a

significant economic impact on a substantial number of small entities. As required by Executive Order 13272, "Proper Consideration of Small Entities in Agency Rulemaking" (67 FR 53461, August 16, 2002), DOE published procedures and policies to ensure that the potential impacts of its draft rules on small entities are properly considered during the rulemaking process (68 FR 7990, February 19, 2003), and has made them available on the Office of General Counsel's Web site: <http://www.gc.doe.gov>.

DOE has reviewed today's revised General Guidelines for the Voluntary Greenhouse Gas Reporting Program under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003. The Guidelines establish procedures and guidance for the accurate voluntary reporting of information on greenhouse gas emissions and reductions. Participation in the reporting program is voluntary, and the Department anticipates that small entities will weigh the benefits and costs when deciding to participate. To minimize the burden on small entities that choose to participate, the guidelines exempt "small emitters" (usually small businesses or organizations) from requirements for an entity-wide inventory and an entity-wide assessment of emission reductions. These exemptions mean that small emitters can participate at a significantly lower cost than otherwise. On the basis of the foregoing, DOE certifies that these guidelines will not have a significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared a regulatory flexibility analysis for this rulemaking.

C. Review under the Paperwork Reduction Act

EIA previously obtained Paperwork Reduction Act clearance by the Office of Management and Budget (OMB) for forms used in the current Voluntary Reporting of

Greenhouse Gases program (OMB Control No. 1905-0194). EIA is preparing new forms and associated instructions to implement the revised guidelines for the program, and it will publish a separate notice in the Federal Register requesting public comment on the proposed collection of information in accordance with 44 U.S.C. 3506 (c)(2)(A). After considering the public comments, EIA will submit the new forms, instructions, and related guidelines to OMB for approval pursuant to 44 U.S.C. 3507 (a)(1).

D. Review under the National Environmental Policy Act

DOE has concluded that these revised General Guidelines fall into a class of actions that will not individually or cumulatively have a significant impact on the human environment, as determined by DOE's regulations implementing the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*). This action deals with the procedures and guidance for entities that wish to voluntarily report their greenhouse gas emissions and their reduction and sequestration of such emissions to EIA. Because the guidelines relate to agency procedures, they are covered under the Categorical Exclusion in paragraph A6 to subpart D, 10 CFR part 1021. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review under Executive Order 13132

Executive Order 13132, "Federalism" (64 FR 43255, August 4, 1999) imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. Agencies are required to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to

ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations (65 FR 13735). DOE has examined today's action and has determined that it does not preempt State law and does not have a substantial direct effect 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. No further action is required by Executive Order 13132.

F. Review under the Treasury and General Government Appropriations Act, 2001

The Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516, note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (February 22, 2002), and DOE's guidelines were published at 67 FR 62446 (October 7, 2002). DOE has reviewed today's final rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

One organization commented on DOE's interim final and draft Technical Guidelines and sought clarification on whether and how DOE and EIA information quality guidelines apply to information submitted under section 1605(b). The organization criticized the interim final guidelines for failing to address issues that it thought would arise when third parties challenge the quality of publicly disseminated emissions reduction data voluntarily submitted to DOE by business and industry stakeholders. In this commenter's view, third party challenges will require EIA to

request substantiation of the validity of the reported data and possibly lead to disclosure of confidential business information or trade secrets. This, it argued, could cause business and industry stakeholders to be reluctant to take part in the voluntary reporting program or, at least, add to the cost of doing business. This commenter also felt the perceived value of registered reductions would be called into question if, as a result of data quality challenges, the underlying data were viewed as unreliable.

As requested, DOE clarifies here the application of DOE and EIA information quality guidelines to information submitted under section 1605(b). Agency information quality guidelines apply to information disseminated by DOE based on the voluntary reports of greenhouse gas emissions information reported to EIA under section 1605(b) of the Energy Policy Act of 1992. When EIA disseminates information reported under section 1605, the public has the opportunity to utilize DOE's established administrative mechanisms to seek and obtain, where appropriate, timely correction of information maintained and disseminated by EIA that does not comply with applicable information quality guidelines. As set forth in DOE's Information Quality Guidelines, requests for correction must: (1) specifically identify the information in question and the document(s) containing the information; (2) explain with specificity the reasons why the information is inconsistent with the applicable quality standards in the OMB, DOE, or EIA guidelines; (3) present substitute information, if any, with an explanation showing that such information is consistent with the applicable quality standards in the OMB, DOE, or EIA guidelines; and (4) justify the necessity for, and the form of, the requested correction

While DOE and EIA seek to ensure the transparency and accuracy of 1605(b) information by specifying the methods that must be used to calculate emission reductions

that are to be registered and by requiring certain information about the entity that produced the emissions, section 1605(b)(2) requires self-certification by reporting entities and does not authorize or direct EIA to verify the accuracy of information in reports. In addition, section 1605(b)(3) provides that trade secret and commercial or financial information that is privileged or confidential shall be protected as provided in 5 U.S.C. 552(b)(4). If a member of the public seeking correction submits information that calls into question the accuracy of information in a particular 1605(b) report, then EIA may ask the person who submitted the report to respond to the issues raised and, if appropriate, submit corrected 1605(b) information.

G. Review under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, "Civil Justice Reform" (61 FR 4729, February 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; and (3) provide a clear legal standard for affected conduct rather than a general standard and promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988

requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, these revised guidelines meet the relevant standards of Executive Order 12988.

H. Review under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires each Federal agency to assess the effects of a Federal regulatory action on state, local, and tribal governments, and the private sector. The Department has determined that today's action does not impose a Federal mandate on state, local or tribal governments or on the private sector.

I. Review under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105-277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. These revised guidelines would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

J. Review under Executive Order 13211

Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) requires Federal agencies to prepare and submit to the OMB, a Statement of Energy Effects for any proposed significant energy action. A "significant energy action" is defined as any

action by an agency that promulgated or is expected to lead to promulgation of a final rule, and that: (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy, or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use. Today's regulatory action would not have a significant adverse effect on the supply, distribution, or use of energy and is therefore not a significant energy action. Accordingly, DOE has not prepared a Statement of Energy Effects.

K. Congressional Review

As required by 5 U.S.C. 801, DOE will report to Congress the promulgation of this rule prior to its effective date. The report will state that it has been determined that the rule is not a “major rule” as defined by 5 U.S.C. 804(2).

List of Subjects in 10 CFR Part 300

Administrative practice and procedure, Energy, Gases, Incorporation by reference, Reporting and recordkeeping requirements.

Issued in Washington, D.C., on April 13, 2006

[signed]

Karen A. Harbert

Assistant Secretary for Policy and International Affairs

Accordingly, the interim final rule published at 70 FR 15169 on March 24, 2005, which added a new Subchapter B to Title 10 of the Code of Federal Regulations, is adopted as a final rule with changes. Subchapter B consisting of part 300 is revised to read as follows:

**SUBCHAPTER B--CLIMATE CHANGE
PART 300—VOLUNTARY GREENHOUSE GAS REPORTING PROGRAM:
GENERAL GUIDELINES**

Sec.

300.1 General.

300.2 Definitions.

300.3 Guidance for defining and naming the reporting entity.

300.4 Selecting organizational boundaries.

300.5 Submission of an entity statement.

300.6 Emissions inventories.

300.7 Net emission reductions.

300.8 Calculating emission reductions.

300.9 Reporting and recordkeeping requirements.

300.10 Certification of reports.

300.11 Independent verification.

300.12 Acceptance of reports and registration of entity emission reductions.

300.13 Incorporation by reference.

Authority: 42 U.S.C. 7101, et seq., and 42 U.S.C. 13385(b).

§ 300.1 General.

(a) Purpose. The General Guidelines in this part and the Technical Guidelines incorporated by reference in § 300.13 govern the Voluntary Reporting of Greenhouse Gases Program authorized by section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)). The purpose of the guidelines is to establish the procedures and requirements for filing voluntary reports, and to encourage corporations, government

agencies, non-profit organizations, households and other private and public entities to submit annual reports of their greenhouse gas emissions, emission reductions, and sequestration activities that are complete, reliable and consistent. Over time, it is anticipated that these reports will provide a reliable record of the contributions reporting entities have made toward reducing their greenhouse gas emissions.

(b) Reporting under the program.

(1) Each reporting entity, whether or not it intends to register emissions as described in paragraph (c) of this section, must:

(i) File an entity statement that meets the appropriate requirements in § 300.5(d) through (f) of this part;

(ii) Use appropriate emission inventory and emission reduction calculation methods specified in the Technical Guidelines (incorporated by reference, see § 300.13), and calculate and report the weighted average quality rating of any emission inventories it reports;

(iii) Comply with the record keeping requirements in § 300.9 of this part; and

(iv) Comply with the certification requirements in §300.10 of this part;

(2) Each reporting entity, whether or not it intends to register emissions as described in paragraph (c) of this section, may report offset reductions achieved by other entities outside their boundaries as long as such reductions are reported separately and calculated in accordance with methods specified in the Technical Guidelines. The third-party entity that achieved these reductions must agree to their being reported as offset

reductions, and must also meet all of the requirements of reporting that would apply if the third-party entity reported directly under the 1605(b) program.

(3) An entity that intends to register emissions and emission reductions must meet the additional requirements referenced in paragraph (c) of this section.

(4) An entity that does not intend to register emissions and emission reductions may choose to report its emissions and/or emission reductions on an entity-wide basis or for selected elements of the entity, selected gases or selected sources.

(5) An entity that does not intend to register emissions may report emission inventories for any year back to 1990 and may report emission reductions for any year back to 1991, relative to a base period of one to four years, ending no earlier than 1990.

(c) Registration requirements. Entities that seek to register reductions must meet the additional requirements in this paragraph; although these requirements differ depending on whether the entity is a large or small emitter.

(1) To be eligible for registration, a reduction must have been achieved after 2002, unless the entity has committed under the Climate Leaders or Climate VISION programs to reduce its entity-wide emissions relative to a base period that ends earlier 2002, but no earlier than 2000.

(2) A large emitter must submit an entity-wide emission inventory that meets or exceeds the minimum quality requirements specified in § 300.6(b) and the Technical Guidelines (incorporated by reference, see §300.13). Registered reductions of a large emitter must be based on an entity-wide assessment of net emission reductions, determined in accordance with § 300.8 and the Technical Guidelines.

(3) A small emitter must also submit an emission inventory that meets minimum quality requirements specified in § 300.6(b) and the Technical Guidelines (incorporated by reference, see § 300.13) and base its registered reductions on an assessment of annual changes in net emissions. A small emitter, however, may restrict its inventory and assessment to a single type of activity, such as forest management, building operations or agricultural tillage.

(4) Reporting entities may, under certain conditions, register reductions achieved by other entities:

(i) Reporting entities that have met the requirements for registering their own reductions may also register offset reductions achieved by other entities if:

(A) they have an agreement with the third-party entities to do so and these third-party entities have met all of the requirements for registration; or

(B) they were the result of qualified demand management or other programs and are calculated in accordance with the action-specific method identified in § 300.8(h)(5).

(ii) Small emitters that serve as an aggregator may register offset reductions achieved by non-reporting entities without reporting on their own emissions, as long as they have an agreement with the third-party entities to do so and these third-party entities have met all of the requirements for registration.

(d) Forms. Annual reports of greenhouse gas emissions, emission reductions, and sequestration must be made on forms or software made available by the Energy Information Administration of the Department of Energy (EIA).

(e) Status of reports under previous guidelines. EIA continues to maintain in its Voluntary Reporting of Greenhouse Gases database all reports received pursuant to

DOE's October 1994 guidelines. Those guidelines are available from EIA at <http://www.eia.doe.gov/oiaf/1605/guidelns.html>.

(f) Periodic review and updating of General and Technical Guidelines. DOE intends periodically to review the General Guidelines and the Technical Guidelines (incorporated by reference, see § 300.13) to determine whether any changes are warranted; DOE anticipates these reviews will occur approximately once every three years. These reviews will consider any new developments in climate science or policy, the participation rates of large and small emitters in the 1605(b) program, the general quality of the data submitted by different participants, and any changes to other emissions reporting protocols. Possible changes may include, but are not limited to:

(1) The addition of greenhouse gases that have been demonstrated to have significant, quantifiable climate forcing effects when released to the atmosphere in significant quantities;

(2) Changes to the minimum, quantity-weighted quality rating for emission inventories;

(3) Updates to emission inventory methods, emission factors and other provisions that are contained in industry protocols or standards. The review may also consider updates to any government-developed and consensus-based emission factors for which automatic updating is not provided in the Technical Guidelines;

(4) Modifications to the benchmarks or emission conversion factors used to calculate avoided and indirect emissions; and

(5) Changes in the minimum requirements for registered emission reductions.

§ 300.2 Definitions.

This section provides definitions for commonly used terms in this part.

Activity of a small emitter means, with respect to a small emitter, any single category of anthropogenic production, consumption or other action that releases emissions or results in sequestration, the annual changes of which can be assessed generally by using a single calculation method.

Aggregator means an entity that reports to the 1605(b) program on behalf of non-reporting entities. An aggregator may be a large or small emitter, such as a trade association, non-profit organization or public agency.

Anthropogenic means greenhouse gas emissions and removals that are a direct result of human activities or are the result of natural processes that have been affected by human activities.

Avoided emissions means the greenhouse gas emission reductions that occur outside the organizational boundary of the reporting entity as a direct consequence of changes in the entity's activity, including but not necessarily limited to the emission reductions associated with increases in the generation and sale of electricity, steam, hot water or chilled water produced from energy sources that emit fewer greenhouse gases per unit than other competing sources of these forms of distributed energy.

Base period means a period of 1-4 years used to derive the average annual base emissions, emissions intensity or other values from which emission reductions are calculated.

Base value means the value from which emission reductions are calculated for an entity or subentity. The value may be annual emissions, emissions intensity, kilowatt-

hours generated, or other value specified in the 1605(b) guidelines. It is usually derived from actual emissions and/or activity data derived from the base period.

Biogenic emissions mean emissions that are naturally occurring and are not significantly affected by human actions or activity.

Boundary means the actual or virtual line that encompasses all the emissions and carbon stocks that are to be quantified and reported in an entity's greenhouse gas inventory, including de minimis emissions. Entities may use financial control or another classification method based on ownership or control as the means of determining which sources or carbon stocks fall within this organizational boundary.

Carbon dioxide equivalent means the amount of carbon dioxide by weight emitted into the atmosphere that would produce the same estimated radiative forcing as a given weight of another radiatively active gas. Carbon dioxide equivalents are computed by multiplying the weight of the gas being measured by its estimated global warming potential.

Carbon stocks mean the quantity of carbon stored in biological and physical systems including: trees, products of harvested trees, agricultural crops, plants, wood and paper products and other terrestrial biosphere sinks, soils, oceans, and sedimentary and geological sinks.

Climate Leaders means the EPA sponsored industry-government partnership that works with individual companies to develop long-term comprehensive climate change strategies. Certain Climate Leaders Partners have, working with EPA, set a corporate-wide greenhouse gas reduction goal and have inventoried their emissions to measure progress towards their goal.

Climate VISION means the public-private partnership initiated pursuant to a Presidential directive issued in 2002 that aims to contribute to the President's goal of reducing greenhouse gas intensity through voluntary frameworks with industry. Climate VISION partners have signed an agreement with DOE to implement various climate-related actions to reduce greenhouse gas emissions.

De minimis emissions means emissions from one or more sources and of one or more greenhouse gases that, in aggregate, are less than or equal to 3 percent of the total annual carbon dioxide (CO₂) equivalent emissions of a reporting entity.

Department or DOE means the U. S. Department of Energy.

Direct emissions are emissions from sources within the organizational boundaries of an entity.

Distributed energy means electrical or thermal energy generated by an entity that is sold or otherwise exported outside of the entity's boundaries for use by another entity

EIA means the Energy Information Administration within the U.S. Department of Energy.

Emissions means the direct release of greenhouse gases to the atmosphere from any anthropogenic (human induced) source and certain indirect emissions (releases) specified in this part.

Emissions intensity means emissions per unit of output, where output is defined as the quantity of physical output, or a non-physical indicator of an entity's or subentity's productive activity.

Entity means the whole or part of any business, institution, organization, government agency or corporation, or household that:

- (1) Is recognized under any U.S. Federal, State or local law that applies to it;
- (2) Is located and operates, at least in part, in the United States; and
- (3) The emissions of such operations are released, at least in part, in the United States.

First reduction year means the first year for which an entity intends to register emission reductions; it is the year that immediately follows the start year.

Fugitive emissions means uncontrolled releases to the atmosphere of greenhouse gases from the processing, transmission, and/or transportation of fossil fuels or other materials, such as HFC leaks from refrigeration, SF₆ from electrical power distributors, and methane from solid waste landfills, among others, that are not emitted via an exhaust pipe(s) or stack(s).

Greenhouse gases means the gases that may be reported to the Department of Energy under this program. They are:

- (1) Carbon dioxide (CO₂)
- (2) Methane (CH₄)
- (3) Nitrous oxide (N₂O)

(4) Hydrofluorocarbons HFC-23 [trifluoromethane- (CHF₃)HFC-32 [trifluoromethane-CH₂F₂], CH₂CF₃, CH₃F, CHF₂CF₃, CH₂FCF₃, CH₃FCF₃, CHF₂CH₂F, CF₃CH₃, CH₂FCH₂F, CH₃CHF₂, CH₃CH₂F, CF₃CHF₂CF₃, CH₂FCF₂CF₃, CHF₂CHF₂CF₃, CF₃CH₂CF₃, CH₂FCF₂CHF₂, CHF₂CH₂CF₃, CF₃CH₂CF₂CH₃, CH₃ CHFCHF₂CF₂)

(5) Perfluorocarbons (perfluoromethane-CF₄, perfluoroethane-C₂F₆, C₃F₈, C₄F₁₀, c-C₄F₈, C₅F₁₂, C₆F₁₄)

(6) Sulfur hexafluoride (SF₆)

(7) Chlorofluorocarbons (CFC-11 [trichlorofluoromethane-CCl₃F], CCl₂F₂, CClF₃, CCl₂FCClF₂, CClF₂CClF₂, ClF₃CClF₂.)

(8) Other gases or particles that have been demonstrated to have significant, quantifiable climate forcing effects when released to the atmosphere in significant quantities and for which DOE has established or approved methods for estimating emissions and reductions. (Note: As provided in § 300.6(i), chlorofluorocarbons and other gases with quantifiable climate forcing effects may be reported to the 1605(b) program if DOE has established an appropriate emission inventory or emission reduction calculation method, but reductions of these gases may not be registered.)

Incidental lands are entity landholdings that are a minor component of an entity's operations and are not actively managed for production of goods and services, including:

(1) Transmission, pipeline, or transportation right of ways that are not managed for timber production;

(2) Land surrounding commercial enterprises or facilities; and

(3) Land where carbon stock changes are determined by natural factors.

Indirect emissions means greenhouse gas emissions from stationary or mobile sources outside the organizational boundary that occur as a direct consequence of an entity's activity, including but not necessarily limited to the emissions associated with the generation of electricity, steam and hot/chilled water used by the entity.

Large emitter means an entity whose annual emissions are more than 10,000 metric tons of CO₂ equivalent, as determined in accordance with § 300.5(c).

Net emission reductions means the sum of all annual changes in emissions, eligible avoided emissions and sequestration of the greenhouse gases specifically identified in § 300.6(i), and determined to be in conformance with §§ 300.7 and 300.8 of this part.

Offset means an emission reduction that is included in a 1605(b) report and meets the requirements of this part, but is achieved by an entity other than the reporting entity. Offset reductions must not be reported or registered by any other entity and must appear as a separate and distinct component of an entity's report. Offsets are not integrated into the reporting entity's emissions or net emission reductions..

Registration means the reporting of emission reductions that the EIA has determined meet the qualifications for registered emission reductions set forth in the guidelines.

Reporting entity means an entity that has submitted a report under the 1605(b) program that has been accepted by the Energy Information Administration.

Reporting year means the year that is the subject of a report to DOE.

Sequestration means the process by which CO₂ is removed from the atmosphere, either through biologic processes or physical processes.

Simplified Emission Inventory Tool (SEIT) is a computer-based method, to be developed and made readily accessible by EIA, for translating common physical indicators into an estimate of greenhouse gas emissions.

Sink means an identifiable discrete location, set of locations, or area in which CO₂ or some other greenhouse gas is sequestered.

Small emitter means an entity whose annual emissions are less than or equal to 10,000 metric tons of CO₂ equivalent, as determined in accordance with § 300.5(c), and that chooses to be treated as a small emitter under the guidelines.

Source means any land, facility, process, vehicle or activity that releases a greenhouse gas.

Start year means the year upon which the initial entity statement is based and the last year of the initial base period(s).

Subentity means a component of any entity, such as a discrete business line, facility, plant, vehicle fleet, or energy using system, which has associated with it emissions of greenhouse gases that can be distinguished from the emissions of all other components of the same entity and, when summed with the emissions of all other subentities, equal the entity's total emissions.

Total emissions means the total annual contribution of the greenhouse gases (as defined in this section) to the atmosphere by an entity, including both direct and indirect entity-wide emissions.

United States or U.S. means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, and any other territory of the United States.

§ 300.3 Guidance for defining and naming the reporting entity.

(a) A reporting entity must be composed of one or more businesses, public or private institutions or organizations, households, or other entities having operations that annually release emissions, at least in part, in the United States. Entities may be defined by, as appropriate, a certificate of incorporation, corporate charter, corporate filings, tax

identification number, or other legal basis of identification recognized under any Federal, State or local law or regulation. If a reporting entity is composed of more than one entity, all of the entities included must be responsible to the same management hierarchy and all entities that have the same management hierarchy must be included in the reporting entity.

(b) All reporting entities are strongly encouraged to define themselves at the highest level of aggregation. To achieve this objective, DOE suggests the use of a corporate-level definition of the entity, based on filings with the Securities and Exchange Commission or institutional charters. While reporting at the highest level of aggregation is encouraged, DOE recognizes that certain businesses and institutions may conclude that reporting at some lower level is desirable. Federal agencies are encouraged to report at the agency or departmental level, but distinct organizational units (such as a Department of the Interior Fish and Wildlife Service National Wildlife Refuge) may report directly if authorized by their department or agency. Once an entity has determined the level of corporate or institutional management at which it will report (e.g., the holding company, subsidiary, regulated stationary source, state government, agency, refuge, etc.), the entity must include all elements of the organization encompassed by that management level and exclude any organizations that are managed separately. For example, if two subsidiaries of a parent company are to be covered by a single report, then all subsidiaries of that parent company must also be included. Similarly, if a company decides to report on the U.S. and Canadian subsidiaries of its North American operations unit, it must also report on any other subsidiaries of its North American unit, such as a Mexican subsidiary.

(c) A name for the defined entity must be specified by all reporters. For entities that intend to register reductions, this should be the name commonly used to represent the activities being reported, as long as it is not also used to refer to substantial activities not covered by the entity's reports. While DOE believes entities should be given considerable flexibility in defining themselves at an appropriate level of aggregation, it is essential that the name assigned to an entity that intends to register reductions corresponds closely to the scope of the operations and emissions covered by its report. If, for example, an individual plant or operating unit is reporting as an entity, it should be given a name that corresponds to the specific plant or unit, and not to the responsible subsidiary or corporate entity. In order to distinguish a parent company from its subsidiaries, the name of the parent company generally should not be incorporated into the name of the reporting subsidiary, but if it is, the name of the parent company usually should be secondary.

§ 300.4 Selecting organizational boundaries.

(a) Each reporting entity must disclose in its entity statement the approach used to establish its organizational boundaries, which should be consistent with the following guidelines:

(1) In general, entities should use financial control as the primary basis for determining their organizational boundaries, with financial control meaning the ability to direct the financial and operating policies of all elements of the entity with a view to gaining economic or other benefits from its activities over a period of many years. This approach should ensure that all sources, including those controlled by subsidiaries, that are wholly or largely owned by the entity are covered by its reports. Sources that are

under long-term lease of the entity may, depending on the provisions of such leases, also be considered to be under the entity's financial control. Sources that are temporarily leased or operated by an entity generally would not be considered to be under its financial control.

(2) Entities may establish organizational boundaries using approaches other than financial control, such as equity share or operational control, but must disclose how the use of these other approaches results in organizational boundaries that differ from those resulting from using the financial control approach.

(3) Emissions from facilities or vehicles that are partially-owned or leased may be included at the entity's discretion, provided that the entity has taken reasonable steps to assure that doing so does not result in the double counting of emissions, sequestration or emission reductions. Emissions reductions or sequestration associated with land, facilities or other sources not owned or leased by an entity may not be included in the entity's reports under the program unless the entity has long-term control over the emissions or sequestration of the source and the owner of the source has agreed that the emissions or sequestration may be included in the entity's report.

(4) If the scope of a defined entity extends beyond the United States, the reporting entity should use the same approach to determining its organizational boundaries in the U.S. and outside the U.S.

(b) Each reporting entity must keep separate reports on emissions or emission reductions that occur within its defined boundaries and those that occur outside its defined boundaries. Entities must also keep separate reports on emissions and emission

reductions that occur outside the United States and those that occur within the United States.

(c) An entity that intends to register its entity-wide emissions reductions must document and maintain its organizational boundary for accounting and reporting purposes.

§ 300.5 Submission of an entity statement.

(a) Determining the type of reporting entity. The entity statement requirements vary by type of reporting entity. For the purposes of these guidelines, there are three types of entities:

- (1) Large emitters that intend to register emission reductions;
- (2) Small emitters that intend to register emission reductions; and
- (3) Emitters that intend to report, but not register emission reductions.

(b) Choosing a start year. The first entity statement describes the make-up, operations and boundaries of the entity, as they existed in the start year.

(1) For all entities, it is the year immediately preceding the first year for which the entity intends to register emission reductions and the last year of the initial base period(s).

(2) For entities intending to register emission reductions, the start year may be no earlier than 2002, unless the entity has made a commitment to reduce its entity-wide emissions under the Climate Leaders or Climate VISION program. An entity that has made such a commitment may establish a start year derived from the base period of the commitment, as long as it is no earlier than 2000.

(i) For a large emitter, the start year is the first year for which the entity submits a complete emissions inventory under the 1605(b) program.

(ii) The entity's emissions in its start year or its average annual emissions over a period of up to four years ending in the start year determine whether it qualifies to begin reporting as a small emitter.

(3) For entities not intending to register reductions, the start year may be no earlier than 1990.

(c) Determining and maintaining large or small emitter reporting status.

(1) Any entity that intends to register emission reductions can choose to participate as a large emitter, but only an entity that has demonstrated that its annual emissions are less than or equal to 10,000 metric tons of CO₂ equivalent may participate as a small emitter. To demonstrate that its annual emissions are less than or equal to 10,000 metric tons of CO₂ equivalent, an entity must submit either an estimate of its emissions during its chosen start year or an estimate of its average annual emissions over a continuous period not to exceed four years of time ending in its chosen start year, as long as the operations and boundaries of the entity have not changed significantly during that period.

(2) An entity must estimate its total emissions using methods specified in Chapter 1 of the Technical Guidelines (incorporated by reference, see §300.13) or by using the Simplified Emission Inventory Tool (SEIT) provided by EIA and also discussed in Chapter 1. The results of this estimate must be reported to EIA. [Note: emission estimates developed using SEIT may not be used to prepare, in whole or part, entity-wide emission inventories required for the registration of reductions.]

(3) After starting to report, each small emitter must annually certify that the emissions-related operations and boundaries of the entity have not changed significantly since the previous report. A new estimate of total emissions must be submitted after any significant increase in emissions, any change in the operations or boundaries of the small emitter, or every five years, whichever occurs first. Small emitters with estimated annual emissions of over 9,000 metric tons of CO₂ equivalent should re-estimate and submit their emissions annually. If an entity determines that it must report as a large emitter, then it must continue to report as a large emitter in all future years in order to ensure a consistent time series of reports. Once a small emitter becomes a large emitter, it must begin reporting in conformity with the reporting requirements for large emitters.

(d) Entity statements for large emitters intending to register reductions. When a large emitter intending to register emission reductions first reports under these guidelines, it must provide the following information in its entity statement:

- (1) The name to be used to identify the participating entity;
- (2) The legal basis of the named entity;
- (3) The criteria used to determine:
 - (i) The organizational boundaries of the entity, if other than financial control; and
 - (ii) The sources of emissions included or excluded from the entity's reports, such as sources excluded as de minimis emissions;
- (4) The names of any parent or holding companies the activities of which will not be covered comprehensively by the entity's reports;

(5) The names of any large subsidiaries or organizational units covered comprehensively by the entity's reports. All subsidiaries of the entity must be covered by the entity's reports, but only large subsidiaries must be specifically identified in the entity statement;

(6) A list of each country where operations occur, if the entity is including any non-U.S. operations in its report;

(7) A description of the entity and its primary U.S. economic activities, such as electricity generation, product manufacturing, service provider or freight transport; for each country listed under paragraph (d)(6) of this section, the large emitter should describe the economic activity in that country.

(8) A description of the types of emission sources or sinks to be covered in the entity's emission inventories, such as fossil fuel power plants, manufacturing facilities, commercial office buildings or heavy-duty vehicles;

(9) The names of other entities that substantially share the ownership or operational control of sources that represent a significant part of the reporting entity's emission inventories, and a certification that, to the best of the certifier's knowledge, the direct greenhouse gas emissions and sequestration in the entity's report are not included in reports filed by any of these other entities to the 1605(b) program; and

(10) Identification of the start year.

(e) Entity statements for small emitters intending to register reductions. When a small emitter intending to register emission reductions first reports under these guidelines, it must provide the following information in its entity statement:

- (1) The name to be used to identify the participating entity;
- (2) The legal basis of the named entity;
- (3) An identification of the entity's control over the activities covered by the entity's reports, if other than financial control;
- (4) The names of any parent or holding companies the activities of which will not be covered comprehensively by the entity's reports;
- (5) An identification or description of the primary economic activities of the entity, such as agricultural production, forest management or household operation; if any of the economic activities covered by the entity's reports occur outside the U.S., a listing of each country in which such activities occur;
- (6) An identification or description of the specific activity (or activities) and the emissions, avoided emissions or sequestration covered by the entity's report, such as landfill gas recovery or forest sequestration;
- (7) A certification that, to the best of the certifier's knowledge, the direct greenhouse gas emissions and sequestration in the entity's report are not included in reports filed by any other entities reporting to the 1605(b) program; and
- (8) Identification of the start year.

(f) Entity statements for reporting entities not registering reductions. When a participant not intending to register emission reductions first reports under this part, it must, at a minimum, provide the following information in its entity statement:

- (1) The name to be used to identify the reporting entity;
- (2) The legal basis of the entity;

(3) An identification of the entity's control over the activities covered by the entity's reports, if other than financial control;

(4) A description of the entity and its primary economic activities, such as electricity generation, product manufacturing, service provider, freight transport, agricultural production, forest management or household operation; if any of the economic activities covered by the entity's reports occur outside the United States, a listing of each country in which such activities occur; and

(5) A description of the types of emission sources or sinks, such as fossil fuel power plants, manufacturing facilities, commercial office buildings or heavy-duty vehicles, covered in the entity's reports of emissions or emission reductions.

(g) Changing entity statements.

(1) Reporting entities are required to annually review and, if necessary, update their entity statements.

(2) From time to time, a reporting entity may choose to change the scope of activities included within the entity's reports or the level at which the entity wishes to report. A reporting entity may also choose to change its organizational boundaries, its base period, or other elements of its entity statement. For example, companies buy and sell business units, or equity share arrangements may change. In general, DOE encourages changes in the scope of reporting that expand the coverage of an entity's report and discourages changes that reduce the coverage of such reports unless they are caused by divestitures or plant closures. Any such changes should be reported in amendments to the entity statement, and major changes may warrant or require changes in the base values used to calculate emission reductions and, in some cases, the entity's

base periods. Changes in the scope of reporting made on or before May 31 of a given calendar year must be reflected in the report submitted covering emissions and reductions for the following calendar year. Reporting entities may choose to postpone incorporating changes in the scope of reporting made after May 31 until submitting the report covering emissions and reductions for the year after the following calendar year. However, in no case should there be an interruption in the annual reports of entities registering emission reductions. Chapter 2 of the Technical Guidelines (incorporated by reference, see §300.13) provides more specific guidance on how such changes should be reflected in entity statements, reports, and emission reduction calculations.

(h) Documenting changes in amended entity statements. A reporting entity's entity statement in subsequent reports should focus primarily on changes since the previous report. Specifically, the subsequent entity statement should report the following information:

(1) For significant changes in the reporting entity's scope or organizational boundaries, the entity should document:

(i) The acquisition or divestiture of discrete business units, subsidiaries, facilities, and plants;

(ii) The closure or opening of significant facilities;

(iii) The transfer of economic activity to or from specific subentities covered by the entity's reports, such as the transfer of operations to non-U.S. subsidiaries;

(iv) Significant changes in land holdings (applies to entities reporting on greenhouse gas emissions or sequestration related to land use, land use change, or forestry);

(v) Whether the reporting entity is reporting at a higher level of aggregation than it did in the previous report, and if so, a listing of the subsidiary entities that are now aggregated under a revised conglomerated entity, including a listing of any non-U.S. operations to be added and the specific countries in which these operations are located; and

(vi) Changes in its activities or operations (e.g., changes in output, contractual arrangements, equipment and processes, outsourcing or insourcing of significant activities) that are likely to have a significant effect on emissions, together with an explanation of how it believes the changes in economic activity influenced its reported emissions or sequestrations.

§ 300.6 Emissions inventories.

(a) General. The objective of an emission inventory is to provide a full accounting of an entity's emissions for a particular year, including direct emissions of the first six categories of gases listed in the definition of “greenhouse gases” in § 300.2, indirect emissions specified in paragraph (e) of this section, and all sequestration or other changes in carbon stocks. An emission inventory must be prepared in accordance with Chapter 1 of the Technical Guidelines (incorporated by reference, see §300.13). An inventory does not include avoided emissions or any offset reductions, and is not subsequently adjusted to reflect future acquisitions, divestitures or other changes to the reporting entity (although a reporting entity often makes these types of adjustments when

calculating emission reductions under the guidelines). Entity-wide inventories are a prerequisite for the registration of emission reductions by entities with average annual emissions of more than 10,000 metric tons of CO₂ equivalent. Entities that have average annual emissions of less than or equal to 10,000 metric tons of CO₂ equivalent are eligible to register emission reductions associated with specific activities without also reporting an inventory of the total emissions, but such entities should inventory and report the emissions associated with the specific activity(ies) they do cover in their reports.

(b) Quality requirements for emission inventories. The Technical Guidelines (incorporated by reference, see §300.13) usually identify more than one acceptable method of measuring or estimating greenhouse gas emissions. Each acceptable method is rated A, B, C or D, with A methods usually corresponding to the highest quality method available and D methods representing the lowest quality method that may be used. Each letter is assigned a numerical rating reflecting its relative quality, 4 for A methods, 3 for B methods, 2 for C methods and 1 for D methods. Entities that intend to register emission reductions must use emission inventory methods that result in a quantity-weighted average quality rating of at least 3.0.

(1) Entities may at any time choose to modify the measurement or estimation methods that they use for their current or future year emission inventories. Such modifications would enable entities to gradually improve the quality of the ratings over time, but prior year inventories may be modified only to correct significant errors.

(2) Entities that have had their emission quantities and the quantity-weighted quality rating of their emissions inventory independently verified may report their

emissions and average quality ratings by greenhouse gas, indirect emissions and sequestration, rather than by source or sink category.

(3) Entities that certify that they have used only A or B methods, may forego indicating in their reports the quality ratings of the methods used and may forego calculating the quantity-weighted average quality of their emission inventories .

(c) Using estimation methods not included in the Technical Guidelines. An entity may obtain DOE approval for the use of an estimation method not included in the Technical Guidelines (incorporated by reference, see §300.13) if the method covers sources not described in the Technical Guidelines, or if the method provides more accurate results for the entity's specific circumstances than the methods described in the Technical Guidelines. If an entity wishes to propose the use of a method that is not described in the Technical Guidelines, the entity must provide a written description of the method, an explanation of how the method is implemented (including data requirements), empirical evidence of the method's validity and accuracy, and a suggested rating for the method to DOE's Office of Policy and International Affairs (with a copy to EIA). DOE reserves the right to deny the request, or to assign its own rating to the method. By submitting this information, the entity grants permission to DOE to incorporate the method in a future revision of the Technical Guidelines.

(d) Direct emissions inventories. Direct greenhouse gas emissions that must be reported are the emissions resulting from stationary or mobile sources within the organizational boundaries of an entity, including but not limited to emissions resulting from combustion of fossil fuels, process emissions, and fugitive emissions. Process

emissions (e.g., PFC emissions from aluminum production) must be reported along with fugitive emissions (e.g., leakage of greenhouse gases from equipment).

(e) Inventories of indirect emissions associated with purchased energy.

(1) To provide a clear incentive for the users of electricity and other forms of purchased energy to reduce demand, an entity must include the indirect emissions from the consumption of purchased electricity, steam, and hot or chilled water in the entity's inventory as indirect emissions. To avoid double counting among entities, the entity must report all indirect emissions separately from its direct emissions. Entities should use the methods for quantifying indirect emissions specified in the Technical Guidelines (incorporated by reference, see §300.13).

(2) Entities may choose to report other forms of indirect emissions, such as emissions associated with employee commuting, materials consumed or products produced, although such other indirect emissions may not be included in the entity's emission inventory and may not be the basis for registered emission reductions. All such reports of other forms of indirect emissions must be distinct from reports of indirect emissions associated with purchased energy and must be based on emission measurement or estimation methods identified in the Technical Guidelines (incorporated by reference, see §300.13) or approved by DOE.

(f) Entity-level inventories of changes in terrestrial carbon stocks. Annual changes in managed terrestrial carbon stocks should be comprehensively assessed and reported across the entity, and the net emissions resulting from such changes included in the entity's emissions inventory. Entities should use the methods for estimating changes

in managed terrestrial carbon stocks specified in the Technical Guidelines (incorporated by reference, see §300.13).

(g) Treatment of de minimis emissions and sequestration.

(1) Although the goal of the entity-wide reporting requirement is to provide an accurate and comprehensive estimate of total emissions, there may be small emissions from certain sources that are unduly costly or otherwise difficult to measure or reliably estimate annually. An entity may exclude particular sources of emissions or sequestration if the total quantities excluded represent less than or equal to 3 percent of the total annual CO₂ equivalent emissions of the entity. The entity must identify the types of emissions excluded and provide an estimate of the annual quantity of such emissions using methods specified in the Technical Guidelines (incorporated by reference, see §300.13) or by using the Simplified Emissions Inventory Tool (SEIT). The results of this estimate of the entity's total excluded annual emissions must be reported to DOE together with the entity's initial entity statement.

(2) After starting to report, each reporting entity that excludes from its annual reports any de minimis emissions must re-estimate the quantity of excluded emissions after any significant increase in such emissions, or every five years, whichever occurs sooner.

(h) Separate reporting of domestic and international emissions. Non-U.S. emissions included in an entity's emission inventory must be separately reported and clearly distinguished from emissions originating in the U.S. Entities must identify any country-specific factors used in the preparation of such reports.

(i) Covered gases. Entity-wide emissions inventories must include the emissions of the first six categories of named gases listed in the definition of “greenhouse gases” in § 300.2. Entities may report chlorofluorocarbons and other greenhouse gases with quantifiable climate forcing effects as long as DOE has established a method for doing so, but such gases must be reported separately and emission reductions, if any, associated with such other gases are not eligible for registration.

(j) Units for reporting. Emissions and sequestration should be reported in terms of the mass (not volume) of each gas, using metric units (e.g., metric tons of methane). Entity-wide and subentity summations of emissions and reductions from multiple sources must be converted into CO₂ equivalent units using the global warming potentials for each gas in the International Panel on Climate Change's Third Assessment (or most recent) Report, as specified in the Technical Guidelines (incorporated by reference, see §300.13). Entities should specify the units used (e.g., kilograms, or metric tons). Entities may need to use the standard conversion factors specified in the Technical Guidelines to convert existing data into the common units required in the entity-level report. Emissions from the consumption of purchased electricity must be calculated by region (from the list provided by DOE in the Technical Guidelines) or country, if outside the United States. Consumption of purchased steam or chilled/hot water must be reported according to the type of system and fuel used to generate it (from the list provided by DOE in the Technical Guidelines). Entities must convert purchased energy to CO₂ equivalents using the conversion factors in the Technical Guidelines. Entities should also provide the physical quantities of each type of purchased energy covered by their reports.

§ 300.7 Net emission reductions.

(a) Entities that intend to register emission reductions achieved must comply with the requirements of this section. Entities may voluntarily follow these procedures if they want to demonstrate the achievement of net, entity-wide reductions for years prior to the earliest year permitted for registration. Only large emitters must follow the requirements of paragraph (b) of this section, but small emitters may do so voluntarily. Only entities that qualify as small emitters may use the special procedures in paragraph (c) of this section. Entities seeking to register emission reductions achieved by other entities (offsets) must certify that these emission reductions were calculated in a manner consistent with the requirements of paragraph (d) of this section and use the emission reduction calculation methods identified in § 300.8. All entities seeking to register emission reductions must comply with the requirements of paragraph (e) of this section. Only reductions in the emissions of the first six categories of gases listed in the definition of “greenhouse gases” in § 300.2 are eligible for registration.

(b) Assessing net emission reductions for large emitters.

(1) Entity-wide reporting is a prerequisite for registering emission reductions by entities with average annual emissions of more than 10,000 metric tons of CO₂ equivalent. Net annual entity-wide emission reductions must be based, to the maximum extent practicable, on a full assessment and sum total of all changes in an entity's emissions, eligible avoided emissions and sequestration relative to the entity's established base period(s). This assessment must include all entity emissions, including the emissions associated with any non-U.S. operations covered by the entity statement, although the reductions achieved by non-U.S. operations must be separately totaled prior

to being integrated with the net emission reductions achieved by U.S. operations. It must include the annual changes in the total emissions of the entity, including the total emissions of each of the subentities identified in its entity statement. All changes in emissions, avoided emissions, and sequestration must be determined using methods that are consistent with the guidelines described in §300.8 of this part.

(2) If it is not practicable to assess the changes in net emissions resulting from certain entity activities using at least one of the methods described in § 300.8 of this part, the entity may exclude them from its estimate of net emission reductions. The entity must identify as one or more distinct subentities the sources of emissions excluded for this reason and describe the reasons why it was not practicable to assess the changes that had occurred. DOE believes that few emission sources will be excluded for this reason, but has identified at least two situations where such an exclusion would be warranted. For example, it is likely to be impossible to assess the emission changes associated with a new manufacturing plant that produces a product for which the entity has no historical record of emissions or emissions intensity (emissions per unit of product output). However, once the new plant has been operational for at least a full year, a base period and base value(s) for the new plant could be established and its emission changes assessed in the following year. Until the emission changes of this new subentity can be assessed, it should be identified in the entity's report as a subentity for which no assessment of emission changes is practicable. The other example involves a subentity that has reduced its output below the levels of its base period. In such a case, the subentity could not use the absolute emissions method and may also be unable to identify an effective intensity metric or other method.

(3) In calculating its net annual emission reductions, an entity should exclude any emissions or sequestration that have been excluded from the entity's inventory. The entity should also exclude all de minimis and biogenic emissions that are excluded from the entity's inventory of greenhouse gas emissions from its assessments of emission changes.

(c) Assessing emission reductions for entities with small emissions.

(1) Entities with average annual emissions of less than or equal to 10,000 metric tons of CO₂ equivalent are not required to inventory their total emissions or assess all changes in their emissions, eligible avoided emissions and sequestration to qualify for registered reductions. These entities may register emission reductions that have occurred since 2002 and that are associated with one or more specific activities, as long as they:

(i) Perform a complete assessment of the annual emissions and sequestration associated with each of the activities upon which they report, using methods that meet the same quality requirements applicable to entity-wide emission inventories; and

(ii) Determine the changes in the emissions, eligible avoided emissions or sequestration associated with each of these activities.

(2) An entity reporting as a small emitter must report on one or more specific activities and is encouraged, but not required to report on all activities occurring within the entity boundary. Examples of small emitter activities include: vehicle operations; product manufacturing processes; building operations or a distinct part thereof, such as lighting; livestock operations; crop management; and power generation. For example, a farmer managing several woodlots and also producing a wheat crop may report emission reductions associated with managing an individual woodlot. However, the farmer must

also assess and report the net sequestration resulting from managing all the woodlots within the entity's boundary. The small emitter is not required to report on emissions or reductions associated with growing the wheat crop.

(3) A small emitter must certify that the reductions reported were not caused by actions likely to cause increases in emissions elsewhere within the entity's operations. This certification should be based on an assessment of the likely direct and indirect effects of the actions taken to reduce greenhouse gas emissions.

(d) Net emission reductions achieved by other entities (offset reductions or emission reductions submitted by aggregators).

A reporting entity or aggregator under certain conditions may report or register all or some of the net emission reductions achieved by entities that choose not to report under the section 1605(b) program. In all cases, an agreement must exist between the reporting entity or aggregator and the other entity that specifies the quantity of the emission reductions (or increases) achieved by the other entity that may be reported or registered as an offset reduction by the reporting entity or aggregator. A large emitter that is reporting on behalf of other entities must meet all of the requirements applicable to large emitters, including submission of an entity statement, an emissions inventory, and an entity-wide assessment of emission reductions. If an aggregator is a small emitter, it may choose to report only on the activities, emissions and emission reductions of the entities on behalf of which it is reporting and not to report on any of its own activities or emission reductions. The reporting entity or aggregator must include in its report all of the information on the other entity, including an entity statement, an emissions inventory (when required), and an assessment of emission reductions that would be required if the

other entity were directly reporting to EIA. The net emissions reductions (or increases) of each other entity will be evaluated separately by EIA to determine whether they are eligible for registration in accordance with the guidelines of this part. Those registered reductions (or increases) assigned by the other entity, by agreement, to a reporting entity or aggregator will be included in EIA's summary of all registered offset reductions for that entity or aggregator. If the agreement between the reporting entity and other entity is discontinued, for any reason, the reporting entity must inform EIA and must identify any emission reductions previously reported that could be attributable to an increase in the carbon stocks of the other entity. Such reductions will be removed by EIA from the records of the reporting entity's offset reductions.

(e) Net emission reductions to be reported by other entities as offset reductions.

Entities must identify in their report the quantity of any net emission reductions covered by the report, if any, that another entity will report as an offset reduction, including the name of the other entity;

(f) Adjusting for year-to-year increases in net emissions.

(1) Normally, net annual emission reductions for an entity are calculated by summing the net annual changes in emissions, eligible avoided emissions and sequestration, as determined using the calculation methods identified in § 300.8 and according to the procedures described in paragraph (b) of this section for large emitters, paragraph (c) for small emitters of this section for small emitters, and paragraph (d) of this section for offsets. However, if the entity experienced a net increase in emissions for one or more years, these increases must be reported and taken into account in calculating any future year reductions. If the entity subsequently achieves net annual emission

reductions, the net increases experienced in the preceding year(s) must be more than offset by these reductions before the entity can once again register emission reductions. For example, if an entity achieved a net emission reduction of 5,000 metric tons of CO₂ equivalent in its first year, a net increase of 2,000 metric tons in its second year, and a net reduction of 3,000 metric tons in its third year, it would be able to register a 5,000 metric ton reduction in its first year, no reduction in its second year, and a 1,000 metric ton reduction in its third year (3,000-2,000). The entity must file full reports for each of these three years. Its report for the second year would indicate the net increase in emissions and this increase would be noted in EIA's summary of the entity's report for that year and for any future year, until the emissions increase was entirely offset by subsequent emission reductions. If this same entity achieved a net reduction of only 1,000 metric tons in its third year, it would not be able to register additional reductions until it had, in some future year, offset more than its second year increase of 2,000 metric tons.

§ 300.8 Calculating emission reductions.

(a) Choosing appropriate emission reduction calculation methods.

(1) An entity must choose the method or methods it will use to calculate emission reductions from the list provided in paragraph (h) of this section. Each of the calculation methods has special characteristics that make it applicable to only certain types of emissions and activities. An entity should select the appropriate calculation method based on several factors, including:

- (i) How the entity's subentities are defined;
- (ii) How the reporter will gather and report emissions data; and

(iii) The availability of other types of data that might be needed, such as production or output data.

(2) For some entities, a single calculation method will be sufficient, but many entities may need to apply more than one method because discrete components of the entity require different calculation methods. In such a case, the entity will need to select a method for each subentity (or discrete component of the entity with identifiable emission or reductions). The emissions and output measure (generally a physical measure) of each subentity must be clearly distinguished and reported separately. Guidance on the selection and specification of calculation methods is provided in Chapter 2 of the Technical Guidelines (incorporated by reference, see §300.13).

(b) Identifying subentities for calculating reductions. If more than one calculation method is to be used, an entity must specify the portion of the entity (the subentity) to which each method will be applied. Each subentity must be clearly identified. From time to time, it may be necessary to modify existing or create new subentities. The entity must provide to EIA a full description of such changes, together with an explanation of why they were required.

(c) Choosing a base period for calculating reductions. In general, the base period used in calculating emission reductions is the single year or up to four-year period average immediately preceding the first year of calculated emission reductions.

(d) Establishing base values. To calculate emission reductions, an entity must establish a base value against which to compare reporting year performance. The minimum requirements for base values for each type of calculation method are specified in Chapter 2 of the Technical Guidelines (incorporated by reference, see §300.13). In

most cases, an historic base value, derived from emissions or other data gathered during the base period, is the minimum requirement specified. Entities may, however, choose to establish base values that are more stringent than the base values derived from the methods specified in Chapter 2 of the Technical Guidelines as long as their report indicates the rationale for the alternative base value and demonstrates that it would result in a smaller quantity of emission reductions.

(e) Emission reduction and subentity statements. For each subentity, an entity must submit to EIA the following information:

(1) An identification and description of the method used to calculate emission reductions, including:

(i) The type of calculation method;

(ii) The measure of output used (if any); and

(iii) The method-specific base period for which any required base value will be calculated.

(2) The base period used in calculating reductions. When an entity starts to report, the base period used in calculating reductions must end in the start year. However, over time the reporting entity may find it necessary to revise or establish new base periods and base values in response to significant changes in processes or output of the subentity.

(3) A description of the subentity and its primary economic activity or activities, such as electricity generation, product manufacturing, service provider, freight transport, or household operation; and

(4) A description of the emission sources or sinks covered, such as fossil fuel power plants, manufacturing facilities, commercial office buildings or heavy-duty vehicles.

(f) Changes in calculation methods, base periods and base values. When significant changes occur in the composition or output of reporting entities, a reporting entity may need to change previously specified calculation methods, base periods or base values. A reporting entity should make such changes only if necessary and it should fully document the reasons for any changes. The Technical Guidelines (incorporated by reference, see §300.13) describe when such changes should be made and what information on such changes must be provided to DOE. In general, such changes should not result in any alterations to previously reported or registered emission reductions. A reporting entity may alter previously reported or registered emission reductions only if necessary to correct significant errors.

(g) Continuous reporting. To ensure that the summation of entity annual reports accurately represents net, multi-year emission reductions, an entity must submit a report every year, beginning with the first reduction year. An entity may use a specific base period to determine emission reductions in a given future year only if the entity has submitted qualified reports for each intervening year. If an interruption occurs in the annual reports of an entity, the entity must subsequently report on all missing years prior to qualifying for the registration of additional emission reductions.

(h) Calculation methods. An entity must calculate any change in emissions, avoided emissions or sequestration using one or more of the methods described in this paragraph and in the Technical Guidelines (incorporated by reference, see §300.13).

(1) Changes in emissions intensity. An entity may use emissions intensity as a basis for determining emission reductions as long as the entity selects a measure of output that is:

- (i) A reasonable indicator of the output produced by the entity;
- (ii) A reliable indicator of changes in the entity's activities;
- (iii) Related to emissions levels; and
- (iv) Any appropriate adjustments for acquisitions, divestitures, insourcing, outsourcing, or changes in products have been made, as described in the Technical Guidelines (incorporated by reference, see §300.13).

(2) Changes in absolute emissions. An entity may use changes in the absolute (actual) emissions (direct and/or indirect) as a basis for determining net emission reductions as long as the entity makes only those adjustments required by the Technical Guidelines (incorporated by reference, see §300.13). An entity intending to register emission reductions may use this method only if the entity demonstrates in its report that any reductions derived from such changes were not achieved as a result of reductions in the output of the entity, and certifies that emission reductions are not the result of major shifts in the types of products or services produced. Entities may report, but not register, such reductions even if the output associated with such emissions is declining.

(3) Changes in carbon storage (for actions within entity boundaries). An entity may use changes in carbon storage as a basis for determining net emission reductions as long as the entity uses estimation and measurement methods that comply with the

Technical Guidelines (incorporated by reference, see §300.13), and has included an assessment of the net changes in all sinks in its inventory.

(4) Changes in avoided emissions (for actions within entity boundaries). An entity may use changes in avoided emissions to determine its emission reductions. Avoided emissions eligible to be included in the calculation of net emission reductions that qualify for registration include those associated with the sale of electricity, steam, hot water or chilled water generated from non-emitting or low-emitting sources as a basis for determining net emission reductions as long as:

(i) The measurement and calculation methods used comply with the Technical Guidelines (incorporated by reference, see §300.13);

(ii) The entity certifies that any increased sales were not attributable to the acquisition of a generating facility that had been previously operated, unless the entity's base period includes generation values from the acquired facility's operation prior to its acquisition; and

(iii) Generators of distributed energy that have net emissions in their base period and intend to report reductions resulting from changes in eligible avoided emissions, use a method specified in the Technical Guidelines (incorporated by reference, see §300.13) that integrates the calculation of reductions resulting from both changes in emissions intensity and changes in avoided emissions.

(5) Action-specific emission reductions (for actions within entity boundaries). A number of source- or situation-specific methods are provided in the Technical Guidelines and these methods must be used to assess the annual changes in emissions for the specific sources or situation addressed by these methods. In addition, a generic action-specific

method is identified in the Technical Guidelines. An entity intending to register reductions may use the generic action-specific approach only if it is not possible to measure accurately emission changes by using one of the methods identified in paragraphs (h)(1) through (h)(4) of this section. Entities that intend to register reductions and that use the generic action-specific approach must explain why it is not possible to use any of these other methods. An entity not intending to register reductions may use the generic action-specific method to determine emission reductions, as long as the entity demonstrates that the estimate is based on analysis that:

(i) Uses output, utilization and other factors that are consistent, to the maximum extent practicable, with the action's actual performance in the year for which reductions are being reported;

(ii) Excludes any emission reductions that might have resulted from reduced output or were caused by actions likely to be associated with increases in emissions elsewhere within the entity's operations; and

(iii) Uses methods that are in compliance with the Technical Guidelines (incorporated by reference, see §300.13).

(i) Summary description of actions taken to reduce emissions. Each reported emission reduction must be accompanied by an identification of the types of actions that were the likely cause of the reductions achieved. Entities are also encouraged to include in their reports information on the benefits and costs of the actions taken to reduce greenhouse gas emissions, such as the expected rates of return, life cycle costs or benefit to cost ratios, using appropriate discount rates.

(j) Emission reductions associated with plant closings, voluntary actions and government (including non-U.S. regulatory regimes) requirements.

(1) Each report of emission reductions must indicate whether the reported emission reductions were the result, in whole or in part, of plant closings, voluntary actions, or government requirements. EIA will presume that reductions that were not the result of plant closings or government requirements are the result of voluntary actions.

(2) If emission reductions were, in whole or in part, the direct result of plant closings that caused a decline in output, the report must identify the reductions as such; these reductions do not qualify for registration. EIA will presume that reductions calculated using the emissions intensity method do not result from a decline in output.

(3) If the reductions were associated, in whole or part, with U.S. or non-U.S. government requirements, the report should identify the government requirement involved and the effect these requirements had on the reported emission reductions. If, as a result of the reduction, a non-U.S. government issued to the reporting entity a credit or other financial benefit or regulatory relief, the report should identify the government requirement involved and describe the specific form of benefit or relief provided.

(k) Determining the entity responsible for emission reductions. The entity that EIA will presume to be responsible for emission reduction, avoided emission or sequestered carbon is the entity with financial control of the facility, land or vehicle which generated the reported emissions, generated the energy that was sold so as to avoid other emissions, or was the place where the sequestration action occurred. If control is shared, reporting of the associated emission reductions should be determined by agreement between the entities involved so as to avoid double-counting; this agreement

must be reflected in the entity statement and in any report of emission reductions. EIA will presume that an entity is not responsible for any emission reductions associated with a facility, property or vehicle excluded from its entity statement.

§ 300.9 Reporting and recordkeeping requirements.

(a) Starting to report under the guidelines. An entity may report emissions and sequestration on an annual basis beginning in any year, but no earlier than the base period of 1987-1990 specified in the Energy Policy Act of 1992. To be recognized under these guidelines, all reports must conform to the measurement methods established by the Technical Guidelines (incorporated by reference, see §300.13).

(b) Revisions to reports submitted under the guidelines.

(1) Once EIA has accepted a report under this part, it may be revised by the reporting entity only under the circumstances specified in this paragraph and related provisions of the Technical Guidelines (incorporated by reference, see §300.13). In general:

(i) Revised reports may be submitted to correct errors that have a significant effect on previously estimated emissions or emission reductions; and

(ii) Emission inventories may be revised in order to create a consistent time series based on improvements in the emission estimation or measurement techniques used.

(2) Reporting entities must provide the corrected or improved data to EIA, together with an explanation of the significance of the change and its justification.

(3) If a change in calculation methods (for inventories or reductions) is made for a particular year, the reporting entity must, if feasible, revise its base value to assure methodological consistency with the reporting year value.

(c) Definition and deadline for annual reports. Entities must report emissions on a calendar year basis, from January 1 to December 31. To be included in the earliest possible EIA annual report of greenhouse gas emissions reported under this part, entity reports that have not been independently verified must be submitted to DOE no later than July 1 for emissions occurring during the previous calendar year. Reports that have been independently verified must be submitted by September 1 for emissions occurring during the previous year.

(d) Recordkeeping. Entities intending to register reductions must maintain adequate supporting records of base period data for the duration of their participation in the 1605(b) program. Supporting records for all reporting year data must be maintained for at least three years subsequent to the relevant reporting year to enable verification of all information reported. The records should document the basis for the entity's report to EIA, including:

(1) The content of entity statements, including the identification of the specific facilities, buildings, land holding and other operations or emission sources covered by the entity's reports and the legal, equity, operational and other bases for their inclusion;

(2) Information on the identification and assessment of changes in entity boundaries, processes or products that might have to be reported to EIA;

(3) Any agreements or relevant communications with other entities or third parties regarding the reporting of emissions or emission reductions associated with sources the ownership or operational control of which is shared;

(4) Information on the methods used to measure or estimate emissions, and the data collection and management systems used to gather and prepare this data for inclusion in reports;

(5) Information on the methods used to calculate emission reductions, including the basis for:

(i) The selection of the specific output measures used, and the data collection and management systems used to gather and prepare output data for use in the calculation of emission reductions;

(ii) The selection and modification of all base years, base periods and baselines used in the calculation of emission reductions;

(iii) Any baseline adjustments made to reflect acquisitions, divestitures or other changes;

(iv) Any models or other estimation methods used; and

(v) Any internal or independent verification procedures undertaken.

(e) Confidentiality. DOE will protect trade secret and commercial or financial information that is privileged or confidential as provided in 5 U.S.C. 552(b)(4). An entity must clearly indicate in its 1605(b) report the information for which it requests confidentiality. DOE will handle requests for confidentiality of information submitted in 1605(b) reports in accordance with the process established in DOE's Freedom of Information regulations at 10 CFR §1004.11.

§ 300.10 Certification of reports.

(a) General requirement and certifying official: All reports submitted to EIA must include a certification statement, as provided in paragraph (b) of this section, signed by a certifying official of the reporting entity. A household report may be certified by one of its members. All other reports must be certified by the chief executive officer, agency head, or an officer or employee of the entity who is responsible for reporting the entity's compliance with environmental regulations.

(b) Certification statement requirements. All entities, whether reporting or registering reductions, must certify the following:

- (1) The information reported is accurate and complete;
- (2) The information reported has been compiled in accordance with this part; and
- (3) The information reported is consistent with information submitted in prior years, if any, or any inconsistencies with prior year's information are documented and explained in the entity statement.

(c) Additional requirements for registering. The certification statement of an entity registering reductions must also certify that:

- (1) The entity took reasonable steps to ensure that direct emissions, emission reductions, and/or sequestration reported are neither double counted nor reported by any other entity. Reasonable steps include telephone, fax, letter, or email communications to ensure that another entity does not intend to report the same emissions, emission reductions, and/or sequestration to DOE. Direct communications of this kind with participants in demand-side management or other programs directed at very small emitters are not required;

(2) Any emission reductions reported or registered by the entity that were achieved by another entity (other than a very small emitter that participated in a demand-side management or other program) are included in the entity's report only if:

(i) The other entity does not intend to report or register these reductions directly;

(ii) There exists a written agreement with each other entity providing that the reporting entity is the entity entitled to report or register these emission reductions; and

(iii) The information reported on the other entity would meet the requirements of this part if the entity were reporting directly to DOE;

(3) None of the emissions, emission reductions, or sequestration reported were produced by shifting emissions to other entities or to non-reporting parts of the entity;

(4) None of any reported changes in avoided emissions associated with the sale of electricity, steam, hot or chilled water generated from non-emitting or low-emitting sources are attributable to the acquisition of a generating facility that has been previously operated, unless the entity's base period includes generation values from the acquiring facility's operation prior to its acquisition;

(5) The entity maintains records documenting the analysis and calculations underpinning the data reported on this form and records documenting the analysis and calculations underpinning the base values used in calculating annual reductions are maintained in accordance with § 300.9(d) of this part; and

(6) The entity has, or has not, obtained independent verification of the report, as described in § 300.11.

§ 300.11 Independent verification.

(a) General. Entities are encouraged to have their annual reports reviewed by independent and qualified auditors, as described in paragraphs (b), (c), and (f) of this section.

(b) Qualifications of verifiers.

(1) DOE envisions that independent verification will be performed by professional verifiers (i.e. individuals or companies that provide verification or “attestation” services). EIA will consider a report to the program to be independently verified if:

(i) The lead individual verifier and other members of the verification team are accredited by one or more independent and nationally-recognized accreditation programs, described in paragraph (c) of this section, for the types of professionals needed to determine compliance with DOE’s 1605(b) guidelines;

(ii) The lead verifier has experience managing an auditing or verification process, including the recruitment and allocation of other individual verifiers, and has been empowered to make decisions relevant to the provision of a verification statement; and

(iii) All members of a verification team have education, training and/or professional experience that matches the tasks performed by the individual verifiers, as deemed necessary by the verifier accreditation program.

(2) As further guidance, all members of the verification team should be familiar with:

(i) The subject matter covered by the scope of the verification;

(ii) The requirements of this part;

(iii) Greenhouse gas emission and emission reduction quantification;

(iv) Data and information auditing sampling methods; and

(v) Risk assessment and methodologies and materiality analysis procedures outlined by other domestic and international standards.

(3) An individual verifier should have a professional degree or accreditation in engineering (environmental, industrial, chemical), accounting, economics, or a related field, supplemented by specific training and/or experience in emissions reporting and accounting, and should have his or her qualifications and continuing education periodically reviewed by an accreditation program. The skills required for verification are often cross-disciplinary. For example, an individual verifier reviewing a coal electric utility should be knowledgeable about mass balance calculations, fuel purchasing accounting, flows and stocks of coals, coal-fired boiler operation, and issues of entity definition.

(4) Companies that provide verification services must use professionals that possess the necessary skills and proficiency levels for the types of entities for which they provide verification services. Continuing training may be required to ensure all individuals have up-to-date knowledge regarding the tasks they perform.

(c) Qualifications of organizations accrediting verifiers. Organizations that accredit individual verifiers must be nationally recognized certification programs. They may include, but are not limited to the: American Institute of Certified Public Accountants; American National Standards Institute's Registrar Accreditation Board

program for Environmental Management System auditors (ANSI-RAB-EMS); Board of Environmental, Health and Safety Auditor Certification; California Climate Action Registry; Clean Development Mechanism Executive Board; and the United Kingdom Accreditation Scheme.

(d) Scope of verification. (1) As part of any independent verification, qualified verifiers must use their expertise and professional judgment to verify for accuracy, completeness and consistency with DOE's guidelines of:

(i) The content of entity statements, annual reports and the supporting records maintained by the entity;

(ii) The representation in entity statements (or lack thereof) of any significant changes in entity boundaries, products, or processes;

(iii) The procedures and methods used to collect emissions and output data, and calculate emission reductions (for entities with widely dispersed operations, this process should include on-site reviews of a sample of the facilities);

(iv) Relevant personnel training and management systems; and

(v) Relevant quality assurance/quality control procedures.

(2) DOE expects qualified verifiers to refer to the growing body of literature on methods of evaluating the elements listed in paragraph (d)(1) of this section, such as the California Climate Action Registry Certification Protocol, the Climate Leaders Inventory Management Plan Checklist, and the draft ISO 14064.3 Protocol for Validation, Verification and Certification.

(e) Verification statement. Both the verifier and, if relevant, an officer of the company providing the verification service must sign the verification statement. The verification statement shall attest to the following:

(1) The verifier has examined all components listed in paragraph (d) of this section;

(2) The information reported in the verified entity report and this verification statement is accurate and complete;

(3) The information reported by the entity has been compiled in accordance with this part;

(4) The information reported on the entity report is consistent with information submitted in prior years, if any, or any inconsistencies with prior year's information are documented and explained in the entity statement;

(5) The verifier used due diligence to assure that direct emissions, emission reductions, and/or sequestration reported are not reported by any other entity;

(6) Any emissions, emission reductions, or sequestration that were achieved by a third-party entity are included in this report only if there exists a written agreement with each third party indicating that they have agreed that the reporting entity should be recognized as the entity entitled to report these emissions, emission reductions, or sequestration;

(7) None of the emissions, emission reductions, or sequestration reported was produced by shifting emissions to other entities or to non-reporting parts of the entity;

(8) No reported changes in avoided emissions associated with the sale of electricity, steam, hot or chilled water generated from non-emitting or low-emitting sources are attributable to the acquisition of a generating facility that has been previously operated, unless the base year generation values are derived from records of the facility's operation prior to its acquisition;

(9) The verifying entity has procedures in place for the maintenance of records that are sufficient to document the analysis and calculations underpinning this verification. The verifying entity shall maintain such records related to base period data submitted by the reporting entity for the duration of the reporting entity's participation in the 1605(b) program and records related to all other verified data for a period of no less than three years; and

(10) The independent verifier is not owned in whole or part by the reporting entity, nor provides any ongoing operational or support services to the entity, except services consistent with independent financial accounting or independent certification of compliance with government or private standards.

(f) Qualifying as an independent verifier. An independent verifier may not be owned in whole or part by the reporting entity, nor may it provide any ongoing operational or support services to the entity, except services consistent with independent financial accounting or independent certification of compliance with government or private standards.

§ 300.12 Acceptance of reports and registration of entity emission reductions.

(a) Acceptance of reports. EIA will review all reports to ensure they are consistent with this part and with the Technical Guidelines (incorporated by reference,

see §300.13). EIA will also review all reports for completeness, internal consistency, arithmetic accuracy and plausibility. Subject to the availability of adequate resources, EIA intends to notify entities of the acceptance or rejection of any report within six months of its receipt.

(b) Registration of emission reductions. EIA will review each accepted report to determine if emission reductions were calculated using an acceptable base period (usually ending no earlier than 2002), and to confirm that the report complies with the other provisions of this part. EIA will also review its records to verify that the reporting entity has submitted accepted annual reports for each year between the establishment of its base period and the year covered by the current report. EIA will notify the entity that reductions meeting these requirements have been credited to the entity as “registered reductions” which can be held by the reporting entity for use (including transfer to other entities) in the event a future program that recognizes such reductions is enacted into law.

(c) Rejection of reports. If EIA does not accept a report or if it determines that emission reductions intended for registration do not qualify, EIA will return the report to the sender with an explanation of its inadequacies. The reporting entity may resubmit a modified report for further consideration at any time.

(d) EIA database and summary reports. The Administrator of EIA will establish a publicly accessible database composed of all reports that meet the definitional, measurement, calculation, and certification requirements of these guidelines. EIA will maintain separate subtotals of direct emissions, indirect emissions and carbon fluxes. A portion of the database will provide summary information on the emissions and registered emission reductions of each reporting entity.

§ 300.13 Incorporation by reference.

The Technical Guidelines for the Voluntary Reporting of Greenhouse Gases Program (March 2006), referred to throughout this part as the “Technical Guidelines,” have been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy of the Technical Guidelines from the Office of Policy and International Affairs, U.S. Department of Energy, 1000 Independence Ave., S.W., Washington, D.C. 20585, or by visiting the following website:

<http://www.policy.energy.gov/enhancingGHGregistry/technicalguidelines/>. The

Technical Guidelines also are available for inspection at the National Archives and Record Administration (NARA). For more information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html