



Karin Ritter
Manager

Regulatory and Scientific Affairs

1220 L Street, NW
Washington, DC 20005-4070
USA
Telephone 202-682-8472
Email ritterk@api.org
www.api.org

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Stephen E. Calopedis
U.S. Department of Energy
Energy Information Administration, EI-81
1000 Independence Avenue, SW.
Washington, DC 20585.

RE: EIA Revised Forms for Voluntary Reporting of GHG Emissions
[71 FR 42637, July 27, 2006]

Dear Mr. Calopedis,

The American Petroleum Institute (API) and its member companies have participated with the US DOE and others throughout the development process of the General and Technical Guidelines that aim to enhance the robustness of the Voluntary Reporting of Greenhouse Gases Program^{1,2}. API is pleased to have the opportunity to provide comments and recommendations in response to the Federal Register (FR) announcement of July 27, 2006, as referenced above.

In the FR notice the EIA is soliciting comments on its proposed revisions to form EIA-1605 for the collection of voluntarily reported data on greenhouse gas (GHG) emissions; reductions of these emissions; and increased carbon removal, fixation, or sequestration. Furthermore, the EIA is also making available for comment the Simplified Emissions Inventory Tool (SEIT) referenced in the Guidelines, which was developed to simplify the determination of small or large emitters and to identify de minimis emissions sources that could be excluded from the entities' emissions inventories.

Summary of API's Key Issues

API is addressing in the attached document both specific issues and questions raised by the EIA in its July 27, 2006, FR notice as well as other lingering issues that might need to be addressed in technical corrections to the guidelines.

¹ <http://www.pi.energy.gov/pdf/library/April21FRwithFinalGG.pdf>

² http://www.pi.energy.gov/pdf/library/TechnicalGuidelines_March2006.pdf



Key API issues include:

- The US DOE new data quality ranking adds a new layer of complexity and data management requirements that add to the burden of data collection and voluntary reporting;
- The inconsistency that exists between the US DOE requirements and other widely used protocols leads to duplication of effort and confusion, which might discourage companies from voluntarily participating in this reporting program;
- The timeline established for submission of the annual emission inventory reports and their subsequent certification is not manageable. It does not allow for sufficient time to conduct 3rd party reviews and obtaining the needed certification statement upon completion;
- The amount of data required in the reports including the emission estimates, activity data and all the monitoring requirements are excessive and contribute to the data collection and management burden;
- The form should require only information that is needed for EIA's compilation of the data, while back-up details for the reported data should be retained by the reporting entities.

As a consequence to the key issues raised above it is clear that the EIA estimate for the reporting burden is grossly underestimated. Merely completing all the forms - once the data are available, verified, and certified – will exceed the estimate provided by EIA for any size company that has multiple operations and emits a variety of greenhouse gases.

In conclusion, API is supportive of the overall objectives of the voluntary reporting and registration of GHG inventories and associated emission reductions. However, API is mindful that in order to encourage broad participation in such a voluntary program, reporters ought to be given flexibility to maximize the use of sectoral tools and common approaches, that have already been implemented, in order to avoid duplicative data collection and reporting burden.

API will be glad to elaborate on these comments, as might be needed. Please don't hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to be "API" with a stylized flourish extending to the right.

Comments of the American Petroleum Institute

Energy Information Administration: Revised Forms for Voluntary Reporting of Greenhouse Gas Emissions

{Federal Register / Vol. 71, No. 144 / Thursday, July 27, 2006 / Notices}

The American Petroleum Institute (API) and its member companies are offering below detailed comments on the proposed revision to the EIA-1605 form in an effort to simplify the GHG voluntary reporting process while retaining the quality of the underlying data reported. This document is organized to:

1. Address specific issues raised by the EIA in their FR notice,
2. Provide technical comments on certain parts of the forms, and
3. Evaluate the applicability of SEIT for the oil & natural gas industry.

As a backdrop to this review we have compared side-by-side the current requirements of EIA-1605 form with those of the revised one (see Appendix A)

1. Issues raised by EIA

Prospective respondents and other interested parties are asked to comment on the actions proposed. API is addressing the specific issues raised by the EIA in the format in which they were presented in the FR notice.

General

A. Is the proposed collection of information necessary for the proper performance of the functions of the agency and does the information have practical utility (i.e. usefulness of the information taking into account its accuracy, adequacy, reliability, timeliness, and the agency's ability to process the information it collects)?

The total amount and broad reach of the information requested is very extensive for a Voluntary reporting program. It is not clear that the EIA will have the resources needed for a meaningful review, analysis and summary of all the information in a timely manner.

B. What enhancements can be made to the quality, utility, and clarity of the information to be collected?

The Instructions Manual is excessively long and, when coupled with the voluminous Guidelines themselves, they represent a barrier to voluntary reporting. It might be preferable to simplify the Instructions Manual and eliminate forms that require merely the submission of background information.

Potential Respondent to the Request for Information*A. What actions could be taken to help ensure and maximize the quality, objectivity, utility, and integrity of the information to be collected?*

Entities should be encouraged to use an Inventory Quality Management System, similar to the recommendations found in the Petroleum Industry Guidelines (IPIECA/API/OGP, December 2003).

Additionally, the DOE quality rating system - as currently constructed - creates an additional layer of information that needs to be developed and tracked. API recommends that reporters have the flexibility of either using the DOE rating system or a 3rd party audit, to document the quality of their emissions estimation approach and to certify that they have met the requirements of the 1605(b) program. This option could obviate the need to demonstrate an average-weighted quality rating of 3.0, as currently mandated, in order to register GHG emission reductions.

B. Are the instructions and definitions clear and sufficient? If not, which instructions need clarification?

The instructions appear to be generally clear, though overwhelming in length and complexity. There seems to be several inconsistencies: (1) the way in which data quality rankings are applied to the different sectors of the Oil & Gas industry, and (2) the method recommended for allocating GHG emissions between power and heat (steam) generation from combined heat and power projects.

C. Can the information be submitted by the due date?

There are two main reasons why the proposed timeline is insufficient and does not reflect what's happening in practice. On the one hand the new methods of data quality ranking will be burdensome and make it more difficult to meet the July 1st reporting schedule, while on the other hand, if companies would want to use 3rd party audits to verify their data quality (as discussed above) and/or attain a certification statement for emission reduction credits, the additional time allowed (till September 1st) is insufficient even for a modest size company. It might be advisable to allow a full six-months (till the end of the calendar year) for reporting by those companies that wish to subject their data to 3rd party review

A special case in point is the expected initial reporting in 2007. The proposed dates would not be attainable if the forms and all other tools are not finalized and available by the end of 2006. Organizations need sufficient time to set up their internal systems that conform to the new guidelines and gather the needed information in order to initiate reporting in 2007 (for 2006 data).

Current systems in place in many companies require non-financial audits on a rotating basis using some risk criteria rather than annual performance. Many large entities - with complex

operating structures - conduct non-financial assurance audits on a two-to-three year rotating cycle to minimize burden on their operations. DOE is urged to consider a cyclical approach to certification so that not every year in the cycle has to be performed at the same level of detail throughout the reporting entity.

- D. Public reporting burden for this collection is estimated to range between 32 to 64 hours (with an average of 48 hours) per response on Form EIA-1605, depending on the type of report and level of detail the respondent chooses for reporting. The estimated burden includes the total time necessary to provide the requested information. In your opinion, how accurate is this estimate?*

The EIA is grossly underestimating the range of hours required to complete the revised forms. EIA's estimate of 32-to-64 hours per response for the revised Form EIA-1605 is far from realistic. Such an estimate is barely representative of the reporting burden for very simple organizations with few locations and emission sources, or for organizations where most, if not all, of their emissions come from 'indirect' GHG emissions (i.e., those associated with purchasing power, steam and heat).

Although the revised reporting forms only require that the final emissions data be recorded, it is important to note that the real effort is in compiling the source-level emissions data, aggregating it at the facility level and merging it into an entity report. It is the level of effort that is required to collect and manage all the required data components and maintain the data system that is the crux of the burden.

Moreover, for most manufacturing and producing entities, with many subsidiaries, the reporting burden would be widespread throughout the entity, as the report is generated from the bottom-up, namely it is developed organically from the facility to the corporate level, namely there are many levels of data collection, archival, review, and aggregation, adding to the burden at multiple layers.

- E. The agency estimates that the only cost to a respondent is for the time it will take to complete the collection. Will a respondent incur any start-up costs for reporting, or any recurring annual costs for operation, maintenance, and purchase of services associated with the information collection?*

The start-up and recurring annual costs for reporting will vary depending on entity complexity and whether the entity is able to utilize their existing data system for collecting and assembling its GHG inventory and emissions reductions reports. Even for entities that currently collect information internally, there will be an extra burden associated with the additional information required by the multiple schedules and parts in Form EIA-1605, especially data that is not currently collected routinely, such as for output measures, quantifying 3% de minimis, and determining the average weighted inventory quality rating.

The start-up cost may range from setting up a whole new data management system to updating the current system with the new requirements of the revised Form EIA-1605. This could be significant since DOE has introduced reporting requirements that differ from current programs (reporting on a financial basis, 3% de minimis threshold, and weighted average quality rating).

Recurring annual costs will vary depending on the complexity of the entity/subentity structure, the number of sources that need to be tracked, changes to the entity/subentity since the last reporting period (acquisitions and divestitures) and the variability of output measures used to calculate intensity, assuming no additional changes are made to the EIA form. Another factor to be considered is the burden associated with ascertaining the integrity of the calculations performed and the aggregation of subentity data into the entity report.

- F. *What additional actions could be taken to minimize the burden of this collection of information? Such actions may involve the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.*

The best way to minimize the burden is to require reporting that is consistent with other protocols that are already widely used. For the Oil & Gas industry the process could be simplified if the reporting focused on accepted practices such as those embedded in the API Compendium and the IPIECA Guidelines.

Data are currently available in many data systems but they have common elements that would make reporting more efficient. Companies and industry organizations use a variety of electronic reporting tools, emission calculation modules and custom databases. If the existing systems could be used as a basis with data just being transcribed to an EIA format this might go a long way towards simplifying reporting.

Another area for minimizing burden is to allow industry associations to develop operating parameters and ranges for declaring that industry-specific sources emit below the deMinimis level. Such an approach will prevent the extra burden of having each entity conduct a separate deMinimis study.

- G. *Does any other Federal, State, or local agency collect similar information? If so, specify the agency, the data element(s), and the methods of collection.*

Programs such as EPA's Climate Leaders, the California Climate Action Registry (CCAR), the Eastern Climate Registry (formerly known as the RGGR), and to a lesser extent by EPA's Natural Gas Star program, collect voluntary GHG information on a regional or sectoral basis.

With the exception of the Natural Gas Star program, all the programs cited above collect information on inventories and not on GHG reduction projects. As stated before in API's comments, it will be useful for DOE to try and harmonize all these inventory reporting activities into a common process in order to try and minimize the proliferation of program-by

program redundant activities, which are resource intensive and present a barrier to voluntary participation at either the state, regional or federal level.

Potential User of the Information to be collected

A. *What actions could be taken to help ensure and maximize the quality, objectivity, utility, and integrity of the information disseminated?*

The dissemination of quality information requires allocation of proper resources to review, analyze and summarize data submitted. EIA ought to review the data for reasonableness within sectors and geographical regions, and also to properly qualify the underlying operating circumstances that are reflected by the data (e.g., refining of cleaner fuels requires more processing and hydrogen generation and could increase GHG emissions; producing oil & gas from mature fields requires the application of enhanced recovery techniques that would necessitate additional energy sources). The prospective user needs to have the proper context for the data reported in order to avoid misinterpretation and improper attempts at ‘benchmarking.’

B. *Is the information useful at the levels of detail to be collected?*

Publishing detailed tables with voluminous data is not useful and could inadvertently raise business confidentiality concerns. For example, publishing both absolute emissions and emissions intensity on an entity-specific basis might provide a means for estimating entity output, which is normally considered as competitively harmful and could discourage some entities from participating. A higher-level summary of data and insight are generally useful, while the detailed information may be retained as a back up and could be made available for examination should a FOIA request be made.

C. *For what purpose(s) would the information be used? Be specific.*

Data at the entity level could be used for trends analysis. Data on GHG reductions could be useful for categorizing projects’ potential and sharing this information across business sectors, individual states, regional and national activities.

D. *Are there alternate sources for the information and are they useful? If so, what are their weaknesses and/or strengths?*

The annual “top down” national GHG inventory produced by the EIA and the US EPA is a source of information, but it does not have the sectoral and entity information that would be provided under section 1605(b) reporting. Also many states are now endeavoring to develop their own inventories but again they are using primarily broad estimates rather than information at the facility and/or entity level.

For the oil & natural gas industry, API has implemented its voluntary Climate Challenge program¹. Member companies participating in API's GHG estimation and reporting challenge are integrating GHG estimation into their operating procedures and are reporting their estimates on U.S. emissions to API. API aggregates member emissions data and report the results annually. Additionally, many member companies are generating their own emissions inventories and publishing them in their Sustainability reports.

Additional comments on the Forms and Instructions

Schedule I, Part B – 2b Indirect Emissions from Purchased Energy and 2c Emissions from Purchased Energy for Calculating Emission Reductions - the footnote to these forms indicates the methane and nitrous oxide emissions may be assumed to be de minimis. If such exceptions are allowed, the reporting entity will not be able to demonstrate that the sum of all de minimis emissions meets the 3% threshold. The guidelines and reporting forms should provide default emission factors for these sources.

Schedule I, Part B – 2c Emissions from Purchased Energy for Calculating Emission Reductions, in Addendum A - the caption for this table notes in parentheses “not included in emissions inventory”; while the first row requires entering emissions data for “Electricity (for emissions inventory)”. The instructions indicate that different emission factors are applied to the purchased electricity for use in the inventory (Form 2b) versus the ones used for estimating reductions (Form 2c). This is quite confusing so we suggest including Form 2c in Addendum A with the other tables that are specific to reporting project reductions.

Schedule I, Part B, Industrial Processes – e Fugitive Emissions Associated with Geologic Reservoirs and f Captured CO2 Emissions (p. 12) – both of these forms and the accompanying instructions are extremely confusing because emissions associated with carbon dioxide that is captured and stored (a reduction activity) are mixed in with emissions associated with CO2 extraction, transport, and injection conducted for enhanced oil recovery, or otherwise, that might be part of an entity's activities included in their inventory. Where carbon is captured and stored as part of an emission reduction project, the information related to this project activity should be recorded separately from the inventory information, as is done for the other reduction methods.

Additionally, in form e there is a potential to double count emissions. For example, a company that extracts, processes, and transports CO2 to sell to petroleum operations for enhanced oil recovery would report both the total volume extracted from the reservoir under either the first or second row of table e, as well as the portion of this total that is emitted to the atmosphere during the extraction, processing, and transportation operations under rows 3-6. Based on the Technical Guidelines Section 1.G.3 Accounting for Sequestered Carbon Dioxide Over Time: “When a geologic sequestration project is undertaken for the sole purpose of emissions mitigation, the

¹ http://api-ec.api.org/policy/index.cfm?objectid=DB934EB3-DC9F-4A87-A95A238C6981D268&method=display_body&er=1&bitmask=41499411-5BC9-459A-AA7824B703407A69

accounting is straightforward. The amount of carbon dioxide emitted may be determined as the quantity of carbon dioxide lost as fugitive emissions during the capture, transport, and injection of carbon dioxide.” The Technical Guidelines do not require the reporting entity to report the amount of CO₂ extracted as part of estimating fugitive emissions.

Schedule I, Part B, e. *Post Injection Seepage From a Permanent Geologic Storage Reservoir* – The instructions state that entities are responsible for monitoring and reporting seepage from carbon storage during the reporting year that the emissions occur. This requirement is based on current requirements in the final technical guidelines issued by the USDOE. However, API contends, based on its member companies experience with this technology, that there is a need for substantial revisions of the technical guidelines on this topic to align them better with the IPCC special report on Carbon Capture and Storage². API will be addressing this issue separately with the US DOE under the opportunity being provided to recommend needed technical corrections to the guidelines.

Schedule IV, Section 1, 4. *Certification of Independent Verification* - The form instructions state: “The form must be signed and dated by the lead certifier of the verification team and a corporate officer of your company”, in this case referring to the verification company. This is inconsistent with the General Guidelines Section 300.11 (e) which states “Both the verifier and, if relevant, an officer of the company providing the verification service must sign the verification statement. The Guidelines do not clarify when this is relevant.

Schedule IV, Section 2. *Reporter Self-certification* – The instructions and form request an indication of whether a qualified auditor has independently verified the form. Why is this necessary when such verification would be indicated in Section 1, if opted by the reporting entity?

Addendum A9. *Transmission and Distribution Improvements* - It would be helpful to clarify in both the instructions and the forms that this refers to electricity transmission and distribution. Without clarification, it may be confused with pipeline transmission and distribution.

SEIT Review

The EIA has developed a simplified emissions inventory tool (SEIT) which is intended to provide an efficient, simple inventory tool for small emitters (entities with < 10,000 tonnes CO₂e emissions). This would not apply to the majority of oil or natural gas companies, but could be used by independent producers (i.e., those that operate a few production wells) or contractors serving the petroleum industry.

² http://arch.rivm.nl/env/int/ipcc/pages_media/SRCCS-final/IPCCSpecialReportonCarbondioxideCaptureandStorage.htm

However, if used by small petroleum operations or contractors, SEIT would significantly over-estimate emissions, particularly in the production sector. For the oil and gas industry, SEIT references the IPCC *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (June 2001)* as the source of the emission factors provided. Our review of these factors as part of the GHG Protocols Comparison initiative undertaken during the development of the API Compendium resulted in a finding that in the IPCC document referenced cites outdated AP-42 emission factors and excludes key emission sources (such as tank flashing). IPCC has just completed a revision of their guidelines and the final edited version of the 2006 IPCC Guidelines is expected to be available soon. Nonetheless, even with such revisions the IPCC emission factors are inconsistent with the 1605(b) Technical Guidelines and would result in the lowest quality rating assigned in the Technical Guidelines.

Our recommendation is to apply equipment-based emission factors from the API Compendium in place of the IPCC emission factors.

The SEIT instructions also indicate that the workbook can be used to identify de minimis emissions. This would not be appropriate for most, if not all, oil & natural gas entities. As mentioned previously, the oil and natural gas sector emission factors provided, exclude some key emission sources, which in of themselves exceed the 3% de minimis threshold. As a result, any estimate of de minimis would be gauged against an inaccurate estimate of the total emissions.

For many industry sectors with complex operations and large facilities it might be best to work with industry associations to develop appropriate simplified tools that rely on ranges of operating parameters and activities for declaring that industry-specific sources emit below the de minimis level. Such an approach will prevent the extra burden of having each entity conduct a separate de minimis study and will ensure sectoral consistency.

Appendix A - Comparison of Existing and Proposed Form

Exhibit A-1 below provides a Schedule-by-Schedule comparison of the information collected by the existing EIA-1605 Form vs. its proposed revision in concurrence with the new guidance.

Exhibit 1. Comparison of Existing and Revised EIA-1605 Form

<i>EIA-1605b Schedule</i>	<i>Existing Form</i>	<i>Revised Form</i>
I	<p>“Entity Identification and Certification,” Required information:</p> <ul style="list-style-type: none"> ▪ Identify reporting entity, ▪ Type of reporting entity, ▪ Geographic scope of activities, ▪ Standard Industrial Classification Code (SIC), ▪ Applicability of confidentiality, and ▪ Reporting entities attesting to/certifying the accuracy of the information reported. 	<p>“Entity Information,” Required information expanded to include:</p> <ul style="list-style-type: none"> ▪ Entity level inventory of emissions, and emissions reductions, ▪ Entity level carbon flux, and emissions offsets, ▪ <p>Additionally, Schedule I contains:</p> <ul style="list-style-type: none"> ▪ Collection of NAICS codes (instead of SIC codes), ▪ An expanded list of entity type categories, ▪ Information on any changes in entity statement from previous reporting years, and ▪ Other reporter characteristics (e.g. base period, voluntary program affiliation, and entity organization).
II	<p>“Project level Emissions and Reductions,” Required information:</p> <ul style="list-style-type: none"> ▪ Individual projects that had achieved reductions in greenhouse gas emissions and/or have sequestered carbon. 	<p>“Sub entity Information,” Required information:</p> <ul style="list-style-type: none"> ▪ Data that are similar to data collected on Schedule I of the revised Form EIA– 1605, but on a sub entity-level basis. ▪ Project-level or action-specific reductions can be registered under limited circumstances using the calculation methods specified in the Technical Guidelines and embodied in Addendum A of the revised form.
III	<p>“Entity level Emissions and Reductions,” Used to report information on:</p> <ul style="list-style-type: none"> ▪ Actual emissions for the baseline period of 1987 to 1990, ▪ Emissions for subsequent years (1991 to the present), ▪ Emission reductions for the years 1991 to the present, and ▪ Causes for changes in the levels of emissions and/or emissions reductions. 	<p>“Emissions Reductions Summary,” Focuses on:</p> <ul style="list-style-type: none"> ▪ Summarizing the entity-level emissions reductions, based on information reported by the entity on Schedule I or Schedule II. ▪ Reporters may subdivide the entity into two or more sub entities to permit the use of different calculation methods for estimating GHG emission reductions.

<p>IV</p>	<p>“Commitments to Reduce GHGs,”</p>	<p>“Verification and Certification,”</p>
	<p>The information gathered included:</p> <ul style="list-style-type: none"> ▪ Descriptions of the commitment to reduce GHG, ▪ The reference case used to calculate emissions reductions, ▪ The voluntary program the reduction activity was affiliated with (if applicable), ▪ Information on financial commitments made to support activities designed to reduce GHGs. 	<p>Opportunity for reporters to document:</p> <ul style="list-style-type: none"> ▪ Optional independent, “third-party” verification of the information reported on the Form EIA–1605, and ▪ Expands the certification statement that all reporters must sign. <p>The revised form consists of two sections.</p> <ol style="list-style-type: none"> 1. “Independent Verification,” -collects information on the identity and qualifications of the independent verifier and verification approach and includes the independent verifier’s certification. 2. “Reporter Self-Certification,” - is a self-certification, including the reporter’s declaration that the form meets all three requirements for “reported” reductions, and in the case of “registered” reductions, five additional requirements.
	<p><i>NOTE: Collection of commitment information has been discontinued in the revised form.</i></p>	
<p>Addendum A</p>	<p>Not applicable</p>	<p>“Emission Reduction Methods”</p>
		<ul style="list-style-type: none"> A. 1 Changes in Emissions Intensity A. 2 Changes in Absolute Emissions A. 3 Changes in Carbon Storage A. 4 Changes in Avoided Emissions A. 5 Emissions Reductions from Energy Generation and distribution A. 6 Reductions from Coal Mine Methane Gas Recovery A. 7 Landfill Methane Recovery A. 8 Geologic Sequestration A. 9 (Electric) Transmission and Distribution Improvement A. 10 Capture of Methane from Anaerobic Digestion of Wastewater A. 11 Capture of Methane from Anaerobic Digestion of Animal Waste A. 12 Recycling of Fly Ash A. 13 Demand Side Management A. 14 Combined Heat and Power A. 15 Other Action-specific method A. 16 Destruction of chlorofluorocarbons
<p>Addendum B</p>	<p>Not applicable</p>	<p>“Sub entity Emissions Inventory”</p>
		<p>Part A – Aggregated Emissions by Gas (for independently verified reports only) Part B – Inventory of Emissions and Carbon Flux Part C – Total sub entity emissions and Carbon Flux</p>
<p>Addendum C</p>	<p>Not applicable</p>	<p>“Country-specific Factors Used to Estimate Emissions from Foreign Sources”</p>