



**Follow-Up Comments by the
American Petroleum Institute
to
The U.S. Department of Energy
Voluntary Greenhouse Gases Reporting Workshops**

The American Petroleum Institute (API) appreciates the opportunity to offer input to the US Department of Energy (US DOE) following the four consultation workshops - held during November and December of 2002 - soliciting input on revisions and enhancements of the Voluntary Greenhouse Gas Reporting Program (VGGRP). API represents more than 400 companies involved in all aspects of the oil and natural gas industry and who are keenly interested in the successful implementation of this voluntary program. Several API member companies, API staff and its consultants participated in all four workshops and provided verbal comments during the discussions.

The purpose of this submission is to synthesize the comments provided in our June submission with our contributions at DOE's 1605(b) workshops, and to focus on a few key issues for the Oil & Gas industry. In preparing these comments, API has considered its own experience in compiling and comparing greenhouse gas (GHG) estimation methodologies relevant to oil and gas industry operations.

General Observations

API believes that the existing VGGRP is a flexible program that encourages voluntary participation and minimizes the bureaucratic obstacles for reporting greenhouse gas emissions, emissions reductions, emissions avoided, and carbon sequestration. The President's directive to strengthen the VGGRP can be achieved without changing the basic voluntary nature of the program

It should be noted however that much has changed since the original guidelines were published in 1994. For example, there has been a proliferation of proposed emission estimation methodologies that raises consistency issues across different state, federal, and even international emissions estimation systems. This proliferation of estimation methodologies complicates emissions estimation efforts for companies with global operations.

Overall, an update of the U.S. guidelines is appropriate, particularly in light of the President's directive to "enhance the measurement accuracy, reliability and verifiability" of the VGGRP Greenhouse Gas (GHG) Registry. The updating effort, however, should be guided by the goal of enhancing voluntary participation, while creating a credible registry of emissions and emission reductions/mitigation activities.

Feedback on DOE's Workshop

The US DOE's workshops were organized around main themes, as provided below and the API comments will follow this structure, as much as practicable:

I. Emissions Reporting: Improving Accuracy, Reliability and Verifiability

API developed and submitted to the US DOE copies of its *Compendium of Greenhouse Gas Estimation Methodologies for the Oil and Gas Industry*. The *API Compendium*, which is neither a standard nor a recommended practice for the development of emissions inventories, provides a compilation of recognized methodologies for estimating carbon dioxide and methane emissions from the full range of oil and natural gas industry activities. Use of the *API Compendium* transparent methodologies would enhance consistency and credibility and also simplify verification.

The approach and techniques outlined in the *API Compendium* and similar efforts by other industries should be incorporated, at least by reference, into revised VGGRP guidelines. Reporting entities participating in the VGGRP should have the flexibility to use their preferred, valid methods of emissions estimations, especially in complex industries like the oil and gas sector. At the same time, some standardization of calculation methodologies, without tightly prescribed techniques, may ease the burden of participation.

Discussion at the workshops surrounded issues of organizational and geographic boundaries, sources covered, accounting for both direct and indirect emissions, comparability within and among sectors, and data confidentiality. Recommended approaches for dealing with such issues in the context of the Oil & Gas industry are addressed in the *API Compendium*. For example, the *API Compendium* allows for reporting on either a "100% operated" or "Equity Basis", as long as the inventory developer is consistent in the choice of approach, and the basis for the estimate is documented with the inventory presented. This is also the recommended approach taken by the WRI/WBCSD Greenhouse Gas Protocol document.

In addition, entities should continue to be permitted to report changes in indirect emissions resulting from the purchase or sale of electricity and steam, provided that a clear distinction is made between direct and indirect emissions as well as between the components of indirect emissions (e.g., steam and electricity). For example, cogeneration (or combined heat and power, CHP) – widely recognized as a potentially attractive energy efficient and GHG emissions-reducing technology – offers a clear instance of the importance of being able to include reductions in indirect emissions, and avoidance of incremental emissions from the grid, in any evaluation. While CHP projects may increase direct facility emissions to some extent (although far less than alternative sources of power), they generally provide for greater reductions in indirect emissions. The combined generation of electricity and process steam frequently results in higher overall efficiency and lower GHG emissions than the purchase of electricity and the separate generation of process steam.

Many API-member companies have installed, or plan to install CHP projects, and they would wish to be able to report, and get recognition for, the full benefits of these projects in the VGGRP.

API recommends that the existing VGGRP guidelines be expanded in several ways. They should:

- Incorporate, at least by reference, the many new sources of information and currently established guidance on accounting for emission sources and emissions estimating techniques.
- Allow flexibility for reporting on either “as operated” or “equity share” basis, to allow companies to structure their report to include joint ventures or outsourced activities, if applicable, and to maximize participation.
- Account for both increases, decreases and avoidance of emissions from indirect sources, such as the purchase and sale of electricity and steam, by recognizing the full-gamut of emission reductions associated with net power transfer to the grid from on-site combined heat and power (CHP) activities.

II. Emissions Reductions and Sequestration: Characterization and Measuring

Current VGGRP guidelines allow reporting for either full entities, or for specific projects (without entity-level reporting). API supports continuing this practice as long as the submission fully documents the basis for reporting. This approach will enhance flexibility for participation and will maximize availability of data and exchange of “good operating practices”.

This is due to the fact that many potential participants in the registry may have good information on a specific project but not at the entity-wide level. These entities should be encouraged to report project level information to the registry, even if they do not have the resources to undertake a complete entity-wide reporting. Ensuring greater consistency of reporting across the US and globally can also reduce the burden of reporting. Additionally, an entity that has entity-level data should be allowed to also provide project specific data if it wishes to do so.

When evaluating trends in emission reductions it is recognized that a better picture is revealed when evaluating emissions intensities, rather than absolute emissions. Namely, the greenhouse gas emitted per unit of output would provide a more accurate assessment of the benefit achieved from mitigation measures and how they have contributed to decoupling economic activity from greenhouse gas emission increases. Various industry organizations, such as the API, may be able to provide definition for output for their specific economic sector.

President Bush recognized this fact in establishing a goal of reducing the greenhouse gas intensity of the U.S. economy by 18% during the time period 2002 – 2012.

It is important to base such greenhouse gas intensity reduction evaluations on current years in order to best represent emerging practices. For example, oil and gas production from a declining field is more energy intensive than it is from newer ones. Additionally, the development of new products with improved environmental characteristics may involve more energy intensive processing – such as very low sulfur fuels. As industries develop measures of GHG emissions intensity for the 1605(b) program, they need to be forward looking and develop measures that reflect the existing as well as future product mixes and processing complexity.

One important avenue for emissions reductions is that provided by Sequestration. The presentations at the workshops, as well as current VGGRP guidelines, addressed only carbon sequestration that is attributable to forest management and soil tillage practices. However, new technologies are currently being developed and demonstrated (partly under US DOE funding) allowing for the capture and geological storage of carbon dioxide in underground reservoirs. This approach is also referred to as geological sequestration and is an emerging area for widespread use, though it has already been used for over two decades, in Enhanced Oil Recovery (EOR) techniques for improved production from mature oil fields.

Clearly new guidelines are needed for estimating greenhouse gas reductions associated with geological sequestration technologies, which ought to be specifically addressed by DOE, at this time, so that progress in issuing the revised guidance this year will not be hindered. In devising applicable estimation methodologies there will be a need to develop both project-level methods that apply to specific carbon capture and geological activities, as well as a macro-level approach for estimating national emission reductions.

API recommends that the existing VGGRP guidelines be expanded to:

- Establish a framework for estimating credits from avoided emissions due to indirect emissions reductions or specific energy efficiency projects, such as CHP or others.
- Explicitly address methodologies for estimating emission reductions for various types of geologic sequestration.
- Consult with industry to provide definitions for appropriate output metrics for specific economic sectors.
- Provide for reporting reductions, or improvements, in terms of greenhouse gas intensity, using the output metrics developed as indices for deriving intensity measures for various sectors of the economy.

III. Verifying Emissions and Reductions

The intended use of the reported greenhouse gas emissions data should be the primary driver for determining the required level of verification. The current level of reporting and self-certification in the VGGRP is appropriate to meet the goals of a truly voluntary program as outlined in Section 1605 of the Energy Policy Act of 1992 and in US DOE general guidelines. Requiring a higher level of certification from all reporting entities, whether or not they seek to transfer the credits they claim, could significantly reduce participation in the VGGRP. In particular, the burden posed by a formal verification (or

third-party audit) system will eliminate smaller entities and individuals who are part of the potential universe of reporting entities.

Several approaches can be used for determining either the “credibility” or the “creditability” of reported emission reductions, as appropriate. This hierarchy of approaches will permit the introduction of a tiered verification system. The US DOE should also specifically address the need for verification and retention of the historical database submitted pursuant to the guidelines currently in place.

It may be appropriate for DOE to consider an expansion of the information provided regarding third-party auditing to reflect the intended use of the reported greenhouse gas data. For example, current form EIA 1605 contains minimal information regarding third-party audits. It may be useful to allow entities to include additional information on third-party verification procedures they have voluntarily used.

API strongly recommends to:

- **Retain a robust self-certification procedure for those entities that want only to report their data and reduction efforts.**
- **Establish procedures for independent verification for those entities that desire a higher level of credibility for their reduction efforts.**
- **Modify the current forms to allow for the option of including information on any third-party verification procedures used.**

IV. Managing the 1605 (b) Registry

The guiding principles espoused by API in managing the VGGRP greenhouse gas registry are credibility, transparency and integrity. In order to accomplish this API recommends that:

- The registry should strive for ensuring the creation of one uniform Federal program rather than 50 different state programs;
- Reported information should be maintained simple and at a high level, with details retained at the registering entities;
- The new program should be forward looking, relate to the President’s 2002-2012 goals, perhaps using the existing procedures of current year or a rolling average format, as reference points for future action;
- The US DOE must consider specific modalities for retention of the historical database, in order to protect the existing record of documented emission reductions already attained by current participants.

In moving forward the US DOE may also want to consider the establishment of a public advisory committee, which could facilitate tackling some of the more complicated issues and ensure the credibility of the whole process by calling for broad participation by all stakeholders.

Summary

Flexibility and credibility are key prerequisites for a successful voluntary program. API, on behalf of its member companies, has outlined above a number of specific areas for additional developments and recommendations for modifying the reporting procedures while at the same time enhancing the credibility of the VGGRP without increasing the burden for participation.

To recap, these are the main issues that API will urge the US DOE to consider:

1. Incorporation of new industry methodologies by reference,
2. Explicitly addressing techniques for estimating emission reductions from carbon capture and geological storage projects,
3. Guidance on appropriate measure(s) for greenhouse gas intensity determination, while leaving flexibility for participants from significantly different industry sectors to develop their own appropriate intensity measures, in consultation with the DOE.
4. Setting up a framework for emission reduction estimation covering indirect and avoided emissions, and
5. Establishment of a flexible approach for emissions verification and certification ranging from self-certification to third-party verification.

API stands ready to work collaboratively with the US DOE to develop the new approaches and methods specified above, as appropriate. We are available to meet with US DOE staff, at a mutually convenient time, to discuss these issues further.