

Karin Ritter Manager

Regulatory and Scientific Affairs

1220 L Street, NW Washington, DC 20005-4070 USA

Telephone: 202-682-8472 Fax: 202-682-8031 Email: ritterk@api.org www.api.org

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Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail code: 2822T

1200 Pennsylvania Avenue, NW

Washington, DC 20460

Attention: Docket ID No. EPA-HQ-OAR-2012-0333

RE: Information Collection Request for the Greenhouse Gas Reporting Program; EPA ICR No. 2300.10 (Docket EPA-HQ-OAR-2012-0333)

Dear Docket Clerk:

The American Petroleum Institute (API) appreciates the opportunity to offer comments to the U.S. Environmental Protection Agency (EPA) on this information collection request (ICR) that would enable the agency to continue to collect data for the mandatory Greenhouse Gas Reporting Program (GHGRP) after November 2012.

API represents over 500 companies involved in all aspects of the oil and natural gas industry throughout the USA and globally. API has an extensive record related to GHG emissions estimation and reporting, and its guidelines are used worldwide for developing corporate GHG emission inventories for all segments of the oil and natural gas industry. API has participated extensively throughout the process of developing the reporting rules applicable to its members' pertinent industry sectors, all the while attempting to balance the quality of the data collected while reducing unnecessary burdens on the reporting entities.

The limited summary information originally provided by EPA in its Federal Register notice of May 14, 2012, and the information contained in the 'Supporting Statement Part A', which was the only supporting document initially provided in the above referenced docket, was not sufficient to provide a meaningful comparison of estimated burden. API acknowledges EPA's follow-up to its inquires and the posting of additional supporting information (Appendices A- I) to the docket on July 23rd allowing for a more meaningful comparison.

API's comments are based on the burden estimates for GHG reporting as summarized by EPA and they are compared to information collected from API members based on their facilities' experience with reporting under the GHGRP. The comments below are organized around

responses to EPA's four main questions in its Federal Register notice, with a Technical Annex that provides additional detail on the projected annual burden comparison between EPA's estimate and API members' range of experiences for diverse industry facilities.

(i) EPA Question: Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility;

API Response:

As stated previously by API in its response to comments of June 9, 2009 (Docket ID No. EPA-HQ-OAR-2008-0508), EPA is over-reaching its authority under Clean Air Act Sections 114 and 208. As explained in greater detail in Section IV of those comments, these provisions do not authorize the indefinite and burdensome monitoring, recordkeeping, and reporting from most sectors of the economy. As EPA has acknowledged, the rule was proposed in response to the 2008 Consolidated Appropriations Act, which invoked EPA's authority under the Clean Air Act to collect information about greenhouse gas emissions to the atmosphere.

In the document titled 'Supporting Statement A', EPA is presenting its case for the on-going annual collection of GHG emissions data. It states, "Because EPA does not yet know the specific policies that will be adopted, the data reported under the GHGRP is of sufficient quality to inform policy and program development. The requirements in the GHGRP maximize the amount of emissions reported while excluding small emitters and are consistent with existing GHG reporting programs in order to reduce reporting burden for all parties involved. Also, consistent with the Appropriations Act, the GHGRP covers a broad range of sectors of the economy."

API continues to maintain, as previously communicated to EPA, that since the legislative mandate for this data collection was to guide policy decisions and future legislation, the rationale put forward by EPA does not justify the sustained burden of annual data collection. API has previously recommended that EPA should consider adopting a reporting program that is of a finite duration, perhaps lasting initially for three years, followed by a reassessment of program extent and specific requirements. It was viewed that such duration will provide EPA, and Congress, with the needed data to support regulatory and legislative options, and is consistent with previous limited duration data collection under the authority of Section 114 of the CAA. Such a limited duration program with a potential alternative schedule after reassessment would also be compatible with the overall burden reduction which is the main goal of the OMB clearance process and approval of data collection.

Therefore, API does not believe that this on-going annual collection of information is truly pertinent to the mission of the agency and it still remains unclear as to how the data will be

used besides releasing it to the public. API recommends that EPA work collaboratively with reporters to learn from their experience and examine the practical utility of all the data, and its collection frequency, in order to explore ways to meet what Agency data needs still remains while reducing the significant burdens this GHGRP places on industry on an ongoing basis.

(ii) EPA Question: Evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

API Response:

API review of EPA's burden estimates are based primarily on the information provided in EPA's Supporting Statement A, and the additional details contained in appendix E - costs; appendix F - labor; and appendix I - Subpart W.

In reviewing EPA's summary data in Exhibit 6.1 in the "Supporting Statement Part A: Information Collection Request for the Greenhouse Gas Reporting Program", and the detailed listing of costs in Appendices E and I it is not clear how EPA developed the estimated burden hours and other costs (O&M and Capital) that are provided in the tables for each of the reporting Subparts. There is no description of the assumptions used for estimating burden and whether they are based on 'models', 'reporting scenarios' or actual information from reporting facilities. It appears that the overall burden estimates provided by EPA are based on some assumptions of **an average burden for a given respondent** and do not truly account for the variability among facilities and the range of activities that are required to comply with all the data collection, quantification and reporting requirements under the various Subparts.

In order to assess the accuracy of EPA's estimates API collected data from its members relating to reporting burden from four key subparts, i.e. Subparts C, W, Y, and MM. The data provided by API members is based on actual GHGRP experience from the first round of reporting coupled with a projection of the burden starting with 2013 reporting, and allows for direct comparison of the estimated average burden tabulated by EPA. It is apparent from that comparison (see details in the Technical Annex below) that EPA significantly underestimates the burden of GHG reporting by as much as an order of magnitude or more. The detailed comparisons provided in the Technical Annex demonstrate these differences for the four high impact subparts cited above (Subparts: C, W, Y, and MM) without attempting to extrapolate this to all subparts nationwide.

API members' data and EPA's corresponding estimates are presented in the Technical Annex in two separate tables, one comparing burden hours and the other comparing costs. In

deriving labor costs EPA used average industrial labor rates for the classifications of technical, managerial, clerical and legal staff, based on the Bureau of Labor Statistics (BLS) data, as provided in Appendix F of the current docket. Notwithstanding differences in burden hours, EPA's use of average industrial labor rates alone may lead to more than a 10% underestimate of labor costs for the Oil & Gas Industry when comparing the rates used by EPA with those provided by BLS for specific industry sectors (BLS, May 2011, National Industry Specific Occupational Employment and Wage Estimates).

API collected data from its members on overall labor burden, and not by labor categories. Therefore, for ease of comparison of cost estimates the weighted average labor rates used by EPA for the various subparts are also used in the API analysis, i.e. Subpart C - \$59; Subpart W - \$62; Subpart Y - \$58; and Subpart MM - \$70. In addition API's cost figures also include its members' projections for O&M costs, without quantification of capital expenditures that may be required in future years.

For refineries, EPA estimates an average labor burden per respondent of 101 hours for combustion (Subpart C) and 394 for refinery processes (Subpart Y), or a total average burden of 495 hours per year for a refinery reporting under Subparts C and Y. Based on data received from 16 refineries operated by API members that burden could range from about 600 hours to over 8,000 hours per facility. This marked difference between API members' projections and EPA's estimates for labor hours are also reflected in the range of costs. While API members' estimate a range of costs from about \$21,000 to over \$500,000, for Subpart C, and from about \$7,500 to over \$290,000, for Subpart Y, EPA's average estimates are \$7,200 and \$25,534 for Subparts C and Y, respectively.

The more significant contributors to the range in GHG Reporting burden among refinery sites include the following.

- Facility size / complexity Size and complexity includes overall refinery size, the
 complexity of its interlinked process units, and the number of process units per site.
 Large integrated complexes have more applicable requirements, for example Subpart C
 burden includes combustion units associated with chemical plant(s) that may be onsite,
 and the need to calibrate and track more equipment.
- **Fuel gas system configuration** The site-specific refinery fuel gas systems design and layout would determine whether a facility is able to use the common pipe, common stack, or aggregation methodology, or not. This will determine the number of flowmeters that need to be calibrated and maintained and will contribute to the range of costs.
- **Sampling frequency** Some sites are sampling more frequently than the minimum frequency required by the rule due to other regulatory drivers; however, all of the valid sample data is used for GHG reporting (as required by the GHGRP) therefore, the additional hours for sampling / analysis are included in the labor burden and costs.

• **Elevated equipment** – Sites with a large number of elevated meters and other monitoring equipment incur additional cost from having to build scaffolding to access the equipment for calibration.

For petroleum product suppliers, EPA estimates an average burden of 42 hours per year per respondent. Such an average is overly simplistic since it does not account for the variability in the actual burden that is due to the quantities and different types of petroleum product grades that are supplied and that need to be tracked. The burden estimated by API members accounts for this size and complexity differences. They range from 45 to 260 hours per year for a medium refinery; 60 to 130 hours per year for a large refinery; and 9 to 580 hours per year for an importer and/or exporter. The cost per respondent under Subpart MM is estimated by EPA to be \$2,971. This value should be compared with the industry estimated ranges of close to \$3,000 to over \$18,000 for a medium refinery; from over \$4,000 to close to \$20,000 for a large refinery; and about \$600 to close to \$40,000 per importer and/or exporter.

For onshore production facilities, EPA estimates that to meet the requirements of Subpart W (including combustion) for an average onshore production facility the burden is 95 hours per respondent per year. This estimated burden should be contrasted with API's estimated range of about 270 to more than 26,000 (with an average of over 6,000) hours would be required to comply with the reporting rule for an onshore production facility (defined as basinwide production operations) per year. The API data are based on information received from 17 basins/facilities, representing a total of 42,568 gas wells and 4,464 oil wells. The average labor burden estimated by API is greater than 6,000 hours, which is more than sixty (60) times what EPA has estimated. Even at the lowest end of the range, the burden of reporting for onshore production facilities, as reported by API members, would be at least three times higher than what EPA has estimated as the average burden. Similarly, API's estimated costs of compliance range from close to \$25,000 to over \$1.6 Million (with an average over \$400,000).

For natural gas processing, EPA estimates an average burden of 103 hours annually when accounting both for reporting on both the processing and combustion aspects of natural gas plants. In comparison, API members burden hours estimates are at least double those of EPA with an annual average of 218 hours for small/medium gas plants (≤ 250,000 Mscf/day) and 454 hours for large gas plants (> 250,000 Mscf/day). EPA estimates that the average annual costs per natural gas processing respondent are \$5,962 and \$1,614 for reporting under Subparts W and C, respectively. According to industry data the annual burden may average about \$14,000 or \$40,000 for reporting process emissions under Subpart W requirements for a small/medium, or a large natural gas processing plant, respectively. API estimates a large natural gas processing plant to have an additional annual burden of about \$2,500 for reporting its combustion emissions under Subpart C.

For compressor stations, which are subject only to Subpart C, the amount of labor hours required to comply range from 37 to 72 hours annually per responding facility, based on data from 113 compressor stations provided to API. When compared with EPA's estimated burden of 24 hours for combustion for an oil and gas upstream facility, industry's estimated burden is 1.5 to 3 times higher than that provided by EPA. Similarly, industry estimates a burden in the range of \$2,100 to \$4,200 per responding facility, as compared with the \$1,614 per respondent estimated by EPA.

In general, reporting for the different industry segments that make up the oil and natural gas sector is very burdensome. As noted in the information above the burden varies among producers, natural gas processors and compressor stations due to factors such as wide geographical spread of facilities, and great differences in size, configuration, equipment and systems in place. Specific reasons that account for the wide range of burden hours and costs reported by API members include the following.

- Number of wells Burden increases exponentially with the sheer volume of information required for a basin level facility and the activity level associated with the number of wells in a basin. The burden range can be attributed to the number of pieces of equipment coupled with activity level differences that are part of the monitoring, tracking and reporting costs.
- **Geographical distances** Required travel between support office locations and well sites or plants affects travel time, which in turn contributes to higher labor and travel costs.
- Complexity of facilities Dry gas wells with very low production will not have additional processing equipment, while other sites may have flares, dehydrators, acid gas removal and similar, which greatly affects data collection activities.
- Equipment layouts and configurations Central facilities with no wells on-site do not currently require reporting as opposed to non-centralized operations where all the treatment and/or production surface equipment is located on the well-pad, which requires reporting.
- **Manual data acquisition** The amount of manual labor necessary to acquire the data, including wells production information, as opposed to electronic data collection systems.
- Extent of operations Larger operators that operate in multiple basins could spread their basic GHG program maintenance costs over multiple basin-wide facilities as opposed to smaller operators that are active in only a few basins, or which operate a smaller number of wells.

Additionally, EPA's assumption that the burden will be constant for on-going GHG reporting during the period 2013-2015 is questionable since it does not account for year-on-

year growth and operational changes in very dynamic sectors such as the petroleum and natural gas systems. Moreover, EPA's ICR burden estimate does not account for the additional burden of collecting and archiving currently deferred data elements. EPA does account for the additional burden that could be imposed on reporters due to new requirements – yet to be promulgated – regarding data elements that are 'inputs to emission equations' and which are deferred to 2013/2015. Industry is currently collecting this data and archiving it but once the new regulations are promulgated they would prescribe how the data currently retained by industry would have to be reported back to the start of the GHGRP under the updated data confidentiality provisions.

Although EPA recognizes that some of the on-going rule amendments and technical corrections may impact burden, it claims that most amendments reduced burden or did not affect it. Even if some amendments did streamline regulations, extra burden is imposed on reporters due to the constantly changing and evolving nature of the reporting regulations, requiring reporters to constantly change their data collection procedures, monitoring plans, personnel training and data management systems. This is particularly acute for reporting under Subpart W, which has gone through major revisions and where many technical issues still exist, and which will continue to evolve and thus impose additional burden during the forthcoming 2013-2015 time period.

Ultimately, API contends that the use of global averages over all reporting sectors and subparts, as EPA has done in its summary statement of its burden assessment, masks the true reporting burden for individual industry sectors, and respondents (facilities). As explained in detail above, the deviations from these averages for the burden associated with the petroleum and natural gas sectors both in its upstream and downstream operations is especially significant and is not adequately portrayed via the global burden statement provided by EPA at 77 FR 28378 (May 14, 2012).

API requests that EPA more realistically assess the burden for reporting, especially for those facilities that are geographically very widespread, have a large number of emission sources that are required to be tracked and reported, and are also subject to reporting under multiple subparts. API recommends that EPA lay out the full range of data in its final ICR statements and address how they plan to address and implement options for reducing such reporting burden.

(iii) EPA Question: Enhance the quality, utility, and clarity of the information to be collected;

API Response:

The level of detail specified by EPA for GHG quantification methods and associated measurement procedures do not take into account the contribution of specific sources to

overall facility (or sector) emissions; they address most sources with a similar level of detail. When striving for improved data quality and utility, it might be better to focus data collection and reporting on fewer sources, with an emphasis on those that contribute the most to overall emissions. This will allow respondents to concentrate on improving data quality for significant emission sources, rather than have to spend an inordinate amount of time and effort collecting and quantifying emissions from an array of sources that collectively are small and insignificant.

API is hopeful that the initial data being reported would be used by the EPA to refine and improve the national GHG inventory, especially once companies get beyond using best available measurement methods (BAMM). API recommends that after a finite duration of reporting, such as two or three years for a particular sector, EPA should undertake a review of the data reported with the goal of prioritizing the largest, and truly significant, emission sources for each of the sectors. At that stage, API suggests that EPA consider its options to either sunset the reporting program, or pull back to a less frequent reporting or a more focused approach that centers on the most significant emitting sources. Such a modified reporting approach would lessen the reporting burden while allowing respondents to improve data quality.

In particular, API continues to question the utility of continued reporting under Subpart MM, which EPA itself has acknowledged may lead to double counting of emissions. API stipulates that EPA should be more transparent in their approach to managing the data and describing how it is being used to inform policy, especially as it pertains to Subpart MM.

(iv) EPA Question: Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

API Response:

The initial use of BAMM provided flexibility to companies when starting the GHG reporting process. However, in subsequent years of reporting, the cost of installing monitoring equipment, maintaining it, and performing the required measurements would be substantially higher especially for those industry sectors subject to subparts that are starting to report only from calendar year 2011.

API recommends that – at a minimum - EPA should broaden the use of BAMM beyond 2012. Since BAMM uses a combination of industry activity data with EPA equations for quantifying emissions, these proven emissions estimation techniques should be allowed after

2012. This is most important in high burden cases, especially if installing monitoring equipment would lead to facility shut-down with associated economic disruption.

API is concerned with the added burden posed by the mere fact that EPA is promulgating new rule revisions right up to the reporting deadline. This proximity to the reporting due dates is not allowing sufficient time to implement the final version of what EPA is promulgating into either a company's reporting systems or EPA's e-GGRT. For example, the timing of XML schema updates is extremely tight making it very difficult for companies to adjust their systems to be compatible with the changes in the EPA revised schema and complete the necessary quality checks in time to meet the reporting deadline. These tight schedules and ever-changing requirements significantly increase the reporting burden.

Additionally, as a follow-up to the comments provided on item (iii) above, API contends that reporting burdens can be substantially reduced if reporting, in subsequent years, is streamlined and limited to high priority emission sources. The determination of which sources should be retained for continued reporting could be based on analysis of the data received by EPA during the initial reporting years, and by judicious use of this learning to prioritize for continued reporting, all those sources that contribute the most to overall facility/sector emissions.

In summary, API members have expended substantial resources complying with EPA's GHG reporting program and believe that now might be an opportune time for EPA to consider how to reduce this substantial burden on reporters. API's suggestions above represent various options for consideration by the Agency, and API is ready to continue discussions of these recommendations with the EPA.

Sincerely,

Karin Ritter

cc.

Carole Cook, Climate Change Division, Office of Atmospheric Programs (MC–6207J), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; e-mail address: GHGReportingRule@epa.gov.

William Irving, USEPA, Office of Atmospheric Programs, Climate Change Division Anhar Karimjee, USEPA, Office of Atmospheric Programs, Climate Change Division David Jacobson, USEPA, Office of Atmospheric Programs, Climate Change Division

Technical Annex

Comparing API and EPA ICR Burden Estimates

Background

EPA has published a notice in the Federal Register on May 14th requesting comments on its estimated burden for collecting information under its GHG reporting program. That notice defined the term "burden" as follows:

"Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information."

EPA summarized its burden estimates in Exhibit 6.1 of Supporting Statement Part A^1 , with additional supporting details that is relevant to the oil and natural gas sector provided in Appendix E - costs; Appendix F - labor; and Appendix I - Subpart W.

This technical memorandum provides further details of the comparison between EPA's estimate of the reporting burden as provided in the documents listed above and the comparison presented in the letter above (see data in Tables 1 and 2 below).

API Data Collection

API collected data from its members using the 'burden' definition provided above. The data were provided in terms of annual labor hours per facility and associated O&M costs anticipated for continuing to comply with EPA's GHGRP during the period of 2013-2015. API did not collect future capital costs for continuing compliance with the reporting regulation.

API's goals for the data collection were to evaluate and document the accuracy of EPA's estimate of burden for the GHGRP. API's effort concentrated on compliance with Subparts C, Y, W (onshore production and onshore gas processing segments), and MM. The data received by API and which is summarized below - and compared to EPA's - consists of the following:

- 11 medium refineries (between 100,000 250,000 Bbls/day), and 5 large refineries (over 250,000 Bbls/day);
- 17 basin-wide facilities (consisting of 42,568 gas wells, and 4,464 oil wells)
- 8 small-medium gas plant (≤ 250,000 Mscf/day); and 12 large gas plants (> 250,000 Mscf/day);
- 113 Compressor stations subject only to Subpart C and not Subpart W;

Docket ID No. EPA-HQ-OAR-2012-0333

¹ The headers for the costs column in Exhibit 6.1 of Supporting Statement Part A should be marked as 1000's of \$

• Fuels suppliers: 5 from large refineries, 5 from medium refineries, and 4 for importers/exporters.

Assumptions

- Costs associated with this ICR include labor costs (i.e., the cost of facility staff labor to meet the rule's requirements) and non-labor costs (e.g., cost of contractors, maintenance of equipment, sampling and analysis) associated with providing the required information.
- To calculate labor costs, EPA estimated technical, managerial, clerical, and legal loaded labor rates provided by the Bureau of Labor Statistics for generic nationwide labor rates.
- API did not collect capital cost data so its overall costs reflect only labor and O&M costs.
- API used EPA's weighted average hourly labor rates for each of the subparts to account for labor costs - \$59 (Subpart C); \$62 (Subpart W); \$58 (Subpart Y), and \$70 for Subpart MM.
- The comparison is on the basis of annual burden per facility expressed in terms of averages and ranges.
- API does not use the labor burden and cost data to project national burden and cost for reporting under the GHGRP.

Burden Estimates Comparison

Table 1 – Comparison of Annual Labor Burden Estimate (per respondent)

Subpart	Facility Types ^a	# of API member	API Bu	ırden Estima	EPA Average	API/EPA Burden Hours	
		Facilities	Average	Minimum	Maximum	(hours)	Ratio
Y & C	Med Refinery	11		604	8,613	495	1.22 - 17.4
Y& C	Large Refinery	5		2,209	7,862	495	4.5 - 15.9
MM	Med Refinery	5		45	261	42	1.1 to 6.1
MM	Large Refinery	5		59	129	42	1.4 to 3.0
MM	Import/Export	4		9	580		0.2 to 13.7
W & C	Onshore Production ^b	17 (basins) ^c	6,160	274	26,270	95	65.1 (avg) (2.9 to 277.6)
W & C	Small-Med Gas Plant	8	218			103	2.1
W & C	Large Gas Plant	12	454			103	4.4
С	Compressor Stations	113		37	72	24	1.5 to 3.0

(a) Facility Types:

Medium Refineries: between 100,000 - 250,000 Bbls/day

Large Refineries: >250,000 Bbls/day

Small-Medium Gas Plant = ≤ 250,000 Mscf/day

Large Gas Plant = > 250,000 Mscf/day

(b) Accounts for both process and combustion

Table 2 – Comparison of Estimated Annual Burden Costs (per respondent)

Subpart	Facility Types ^a	# of API member	API I	EPA Average (\$)		
	,	Facilities	Average	Minimum	Maximum	
Υ	Med Refinery	11		7,468	259,152	25,534
Υ	Large Refinery	5		68,298	164,344	25,534
С	Med Refinery	11		21,486	513,373	7,200
С	Large Refinery	5		64,922	292,204	7,200
MM	Med Refinery	5		3,150	18,270	2,971
MM	Large Refinery	5		4,130	20,030	2,971
MM	Import/Export	4		630	40,600	2,971
W	Onshore Production ^c	17 (basins) ^d	438,087	24,988	1,636,740	6,017
W	Small-Med Gas Plant	8	13,985			5,962
w	Large Gas Plant	12	40,438			5,962
С	Small-Med Gas Plant	8	not reported			1,614
С	Large Gas Plant	12	2,585			1,614
С	Compressor Stations	113		2,183	4,221	1,614

(a) Facility Types:

Medium Refineries: between 100,000 - 250,000 Bbls/day

Large Refineries: >250,000 Bbls/day

Small-Medium Gas Plant: ≤ 250,000 Mscf/day

Large Gas Plant: > 250,000 Mscf/day

(b) Costs accounts for MRR Program Maintenance, Data Collection Preparation, Reporting, and O&M. Assumed loaded labor rates by Subpart: Y - \$58/hr; C - \$59/hr; W - \$62/hr; and MM - \$70/hr

- (c) Accounts for both process and combustion
- (d) Includes 42,568 gas wells, and 4,464 oil wells