

**SUPPORTING STATEMENT PART A:
INFORMATION COLLECTION REQUEST
FOR THE
GREENHOUSE GAS REPORTING PROGRAM**

EPA ICR No. 2300.17

May 2016

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**SUPPORTING STATEMENT
FOR THE GREENHOUSE GAS REPORTING PROGRAM
EPA ICR # 2300.17**

1. IDENTIFICATION OF THE INFORMATION COLLECTION

1(a) Title of the Information Collection

TITLE: “Information Collection Request for the Greenhouse Gas Reporting Program (GHGRP).”

ICR Number: 2300.17

1(b) Short Characterization/Abstract

In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161) and under authority of the Clean Air Act (CAA), EPA finalized a greenhouse gas reporting rule in October of 2009 (henceforth referred to as the Greenhouse Gas Reporting Program or GHGRP) (74 FR 56260; October 30, 2009). The Rule, which became effective on December 29, 2009, requires reporting of greenhouse gases (GHGs) from certain large facilities and suppliers. It does not require control of GHGs. Instead, it requires that sources emitting GHGs, supplying certain products that contain GHGs, or inject carbon dioxide (CO₂) underground in quantities above certain threshold levels of CO₂ equivalent (CO₂e) monitor and report GHG data and other relevant information. Subsequent rules have promulgated requirements for additional facilities, suppliers, and mobile sources; provided clarification and corrections to existing requirements; finalized confidentiality business information (CBI) determinations, amended recordkeeping requirements, and implemented an alternative verification approach.

Applicable facilities and suppliers are required by the GHGRP to follow specific monitoring, QA/QC, and calculation procedures to determine GHG emissions and supplies to the economy. Reporters must electronically report monitored and calculated data to EPA using an interactive, web-based tool called the Electronic Greenhouse Gas Reporting Tool (e-GGRT). EPA conducts electronic and manual verification of the reported data and then publishes all non-CBI data on the internet. For 23 subparts, some data used to calculate GHG emissions, such as process or production data specific to each facility’s operations, are not reported to EPA because of disclosure concerns (79 FR 63750; October 24, 2014). Reporters instead enter those data into a web-based verification tool called Inputs Verifier Tool (IVT) housed within e-GGRT. IVT does not retain the entered inputs; instead it calculates emissions using entered “inputs to equations” and conducts verification checks at the time of data entry. IVT generates a verification summary that is accessible to the EPA once the annual report is submitted.

For the three years covered by this ICR, the total respondent burden associated with this reporting will average 739,187 hours per year and the cost for all respondents of the information collection will average \$87,831,801 per year. This includes \$30,621,791 for capital investment

and operation and maintenance and \$57,210,010 for labor. Over the same time period, the total estimated cost for EPA of the information collection will average \$12,000,130 per year. The total estimated cost for all respondents and EPA will average \$99,831,931 per year.

There is a decrease in the average annual respondent burden of 241,845 hours and a decrease in average annual cost for all respondents of \$3,016,199 compared with the last ICR renewal. These changes reflect an update in the number of respondents, an adjustment of labor rates to 2014 Bureau of Labor and Statistics (BLS) labor rates, an adjustment of capital costs to reflect 2013 dollars, a re-evaluation of the hours and costs to monitor and report combustion emissions across the entire program, a re-evaluation of the hours and costs associated with Petroleum and Natural Gas Systems (Subpart W) and Geologic Sequestration of Carbon Dioxide (Subpart RR), and the addition of new segments and new reporters under Subpart W.

2. NEED FOR AND USE OF THE COLLECTION

2(a) Need/Authority for the Collection

Signed into law on December 26, 2007, the FY2008 Consolidated Appropriations Act (henceforth referred to as the “Appropriations Act”) directed EPA to “develop and publish a draft rule not later than 9 months after the date of enactment of this Act, and a final rule not later than 18 months after the date of enactment of this Act, to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy of the United States.”

The accompanying explanatory statement further directed EPA to “use its existing authority under the Clean Air Act” to develop a GHG reporting rule. “The Agency is further directed to include in its rule reporting of emissions resulting from upstream production and downstream sources, to the extent that the Administrator deems it appropriate. The Administrator shall determine appropriate thresholds of emissions above which reporting is required, and how frequently reports shall be submitted to EPA. The Administrator shall have discretion to use existing reporting requirements for electric generating units under Section 821” of the 1990 CAA amendments.

Sections 114 and 208 of the CAA provide EPA authority to require the information mandated by the GHGRP because such data will inform and are relevant to future policy decisions. CAA section 114(a)(1) authorizes the Administrator to require emissions sources, persons subject to the CAA, or persons whom the Administrator believes may have necessary information to monitor and report emissions and provide such other information the Administrator requests for the purposes of carrying out any provision of the CAA (except for a provision of title II with respect to manufacturers of new motor vehicles or new motor vehicle engines). Section 208 of the CAA provides EPA with similar authority regarding the manufacturers of new motor vehicles or new motor vehicle engines, and other persons subject to the requirements of parts A and C of title II. For these reasons, the Administrator may request that a person, on a one-time, periodic or continuous basis, establish and maintain records, make reports, install and operate monitoring equipment and, among other things, provide such information the Administrator may reasonably require.

2(b) Practical Utility/Users of the Data

The GHGRP collects information from facilities that directly emit GHGs or inject CO₂ underground and from suppliers of certain products that contain GHGs. Reporting entities use uniform methods for estimating emissions, which enables data to be compared and analyzed. The comprehensive GHG data reported directly from large facilities and suppliers across the country are easily accessible to the public via EPA’s online data publication tool, also known as FLIGHT (facility level information on greenhouse gases tool) at: <http://ghgdata.epa.gov/ghgp/main.do>. FLIGHT is designed for the general public, and allows users to view and sort GHG data for every data year starting with 2010 from over 8,000 entities in a variety of ways, including by location, industrial sector, and type of GHG emitted. To support the needs of researchers, all

non-confidential data collected through the GHGRP is made available for download through Envirofacts (<http://www.epa.gov/enviro/>), a cross-EPA data publication website.

Data collected through the GHGRP complements the Inventory of U.S. Greenhouse Gas Emissions and Sinks (Inventory) and is currently being used to significantly improve our understanding of key emissions sources. In the most recent Inventory, published in April 2016, EPA used GHGRP data to update the entire emissions estimate and time series for six industries that are covered at no threshold in the GHGRP, including petroleum refineries and aluminum production. For an additional seven industries, EPA used GHGRP data to update portions of the Inventory emissions estimate, including updates to emission factors and activity data. For example, EPA updated its Inventory estimates using newly reported data to the GHGRP for the oil and gas sector. These data from the GHGRP allow the Inventory to better reflect changing technologies and emissions from pneumatic controllers, chemical injection pumps, and production segment fugitives, among others. Finally, EPA used GHGRP data to disaggregate some of the national estimates presented in the Inventory in order to show more detail and to quality check specific sectors, as appropriate. EPA continues to assess the GHGRP data for further updates to the Inventory.

The GHGRP has been used to support the President's Climate Action Plan: Strategy to Reduce Methane Emissions (CAP) in numerous ways. For example, the final carbon pollution standards for new power plants rely on rules that EPA already has in place, including under the Geologic Sequestration of Carbon Dioxide source category (Subpart RR) of the GHGRP, to ensure that CO₂ is safely and securely stored. The EPA released a series of white papers on several potentially significant sources of methane emissions in the oil and natural gas sector. The white papers included information, where applicable, from Subpart W of the GHGRP on sources such as compressors and pneumatic devices. The information gained through the white paper process improved the EPA's understanding of methane emissions from these sources and the mitigation techniques available to control them. The white papers and associated stakeholder input was leveraged for EPA's proposal to amend the new source performance standards for the oil and natural gas source category (80 FR 56593; September 18, 2015) by setting standards for methane and volatile organic compounds for certain equipment, processes and activities across this source category. GHGRP data is also supporting the Natural Gas STAR Methane Challenge Program, which will leverage GHGRP reporting to track partner petroleum and natural gas company activities related to their Methane Challenge commitments.

As part of the proposed New Source Performance Standard (79 FR 41796; July 17, 2014) and Emissions Guidelines (80 FR 52100; August 27, 2015) revisions for municipal solid waste landfills, a database was developed to calculate the cost and emission impacts associated with varying certain control parameters and applying these parameters to a dataset of existing and model future landfills. Information collected through Municipal Solid Waste Landfills (Subpart HH) of the GHGRP about the landfill itself (such as landfill open and closure year, landfill design capacity, landfill design area, and landfill depth), current and historical annual waste acceptance rates, as well as gas collection and control system data (as applicable) were incorporated into the database. These annual historical waste rate data serve as a significant improvement to the data input file used to generate emission estimates. Of the 1,970 landfills in the dataset, 1,217 were from GHGRP Subpart HH data.

Several states also use GHGRP data to inform their own climate change policymaking. For example, the state of Hawaii is using GHGRP data to establish an emissions baseline for each facility subject to their GHG Reduction Plan and to assess whether facilities meet their targets in future years. In addition, to meet their requirements for reporting oil and gas activities in their state to EPA under the National Emissions Inventory, States without their own data collection programs can leverage GHGRP data collected via Subpart W.

The standardization of GHG data provides businesses with the necessary information to benchmark themselves against similar facilities, better understand their relative standing within their industry, and achieve and disseminate their environmental achievements. Businesses and other innovators can use the data to determine and track their GHG footprints, find cost- and fuel-saving efficiencies that reduce GHG emissions (e.g., through energy audits or other forms of assistance), and foster technologies to protect public health and the environment. In addition, transparent, public data on emissions allows for accountability of polluters to the public stakeholders who bear the cost of the pollution. This powerful data resource provides a critical tool for communities to identify nearby sources of GHGs and provide information to state and local governments. One example of this type of practical utility of GHGRP data was outlined in a recent paper on Electrical Transmission and Distribution Equipment Use (Subpart DD) and Electrical Equipment Manufacture or Refurbishment (Subpart SS) authored by EPA staff and contractors (see Docket EPA-HQ-OAR-2012-0333). The paper explains that fluorinated GHG emissions from these industries decreased significantly between 2011 and 2013, and that possible explanations for these reductions include increased awareness by facilities of the magnitude of their emissions (both in absolute terms and relative to the emissions of similar facilities) and/or concerns regarding public perception of those emissions.

The GHGRP is not intended to be a survey and the respondents affected by the program are not intended to be a statistical sample of a larger universe of entities. EPA does not intend to use the data collected under the GHGRP to characterize non-reporting entities or to draw statistical inferences about a larger population.

3. NONDUPLICATION, CONSULTATIONS, AND OTHER COLLECTION CRITERIA

3(a) Nonduplication

EPA evaluated existing GHG programs and the GHG data currently available to determine whether this request duplicates other information collections. In developing the GHGRP, EPA reviewed monitoring methods including:

- Federal programs within the United States, such as the Inventory, the U.S. Department of Energy's (DOE's) Energy Information Administration's (EIA's) 1605b program and other data collection programs, the Bureau of Ocean Energy Management's (BOEM's) reporting programs, the Acid Rain Program, EPA Natural Gas STAR Program, and voluntary GHG partnership programs;
- State and regional GHG reporting programs, such as The Climate Registry, the Regional Greenhouse Gas Initiative, the Western Regional Air Partnership, and programs in several states including California, New Mexico, Connecticut, and New Jersey;
- Reporting protocols developed by nongovernmental organizations, such as the World Resources Institute/World Business Council for Sustainable Development; and
- Programs from industrial trade organizations, such as the Interstate Natural Gas Association of America's GHG Emission Estimation Guidelines, the American Petroleum Institute's Compendium of GHG Estimation Methodologies for the Oil and Gas Industry, and the World Business Council for Sustainable Development's Cement Sustainability Initiative's CO₂ Accounting and Reporting Standard for the Cement Industry.

These are important programs that not only led the way in reporting of GHG emissions before the Federal Government acted but also assisted in quantifying the GHG reductions achieved by various policies. Many of these programs collect different or additional data as compared to the GHGRP. For example, state programs may establish lower thresholds for reporting, request information on areas not addressed in the GHGRP, or include different data elements to support other programs (e.g., offsets). While some programs collect similar information on GHG emissions, the Agency has determined that the GHGRP supplements and complements, rather than duplicates, existing programs' data. Further, EPA has made significant efforts over the past several years to facilitate reporting in the event a single entity has to report both the federal and state level. For example, EPA has supported efforts by the California Air Resources Board to harmonize the reporting of information under California's Global Warming Solutions Act, AB32 with EPA's GHGRP. The product of the collaboration is referred to as California Electronic Greenhouse Gas Reporting Tool, or Cal e-GGRT.

Documentation of EPA's review of GHG monitoring protocols used by federal and state voluntary and mandatory GHG programs as well as GHG reporting rules can be found in the

docket at EPA-HQ-OAR-2008-0508-056. For further discussion on the relationship of the GHGRP to other programs, please refer to the preambles of each of the GHGRP rulemakings, the June 6, 2008 memorandum entitled “Review of Existing Programs” (which can be found in the docket at EPA-HQ-OAR-2008-0508-0052), and the January 27, 2009 memorandum entitled “Review of Existing State Greenhouse Gas Reporting Rules” (which can be found in the docket at EPA-HQ-OAR-2008-0508-0054). Some GHG programs are described below:

- A number of EPA’s voluntary partnership programs include GHG emissions and/or GHG reductions as a reporting component (e.g., Natural Gas STAR program). However, the GHGRP has much broader coverage than the voluntary programs and therefore helps EPA learn more about emissions from facilities not included in current programs.
- EPA considered CO₂ data currently collected under Section 821 of the 1990 CAA Amendments (i.e., the Acid Rain program). To avoid duplication and because the Acid Rain program already requires reporting of high quality CO₂ data from electrical generating units (EGUs), the GHGRP allows for use of the same CO₂ data Facility operators do, however, have to report the emissions of GHGs that are not included under Section 821, such as methane (CH₄) and nitrous oxide (N₂O).
- EPA considered CO₂ data currently collected by BOEM under 30 CFR 550.304. To avoid duplication and because BOEM already requires reporting of high quality CO₂ data from offshore petroleum and natural gas production facilities, the GHGRP only requires reporting of two data elements from this segment of Subpart W: the quantity of gas handled at the offshore platform and the quantity of oil and condensate handled at the offshore platform. These data elements are identical to items that are already being reported to BOEM.
- EPA reviewed the Inventory, which is an annual comprehensive top-down assessment of national GHG emissions. The Inventory assesses GHG emissions from all sectors: energy, industry, waste, agriculture and forestry. While the Inventory is generally compiled from national surveys (i.e., not broken down at the geographic or facility level), the GHGRP focuses on bottom-up data from individual facilities that exceed appropriate thresholds. The bottom-up approach to data collection in the GHGRP can help reduce uncertainty in emissions estimates for specific industries, and as applicable, GHGRP information serves to complement and inform the Inventory. For example, GHGRP data is applied to assess the quality of the top-down data, update activity data, and improve upon methodological approaches in the GHG inventory such as in the development of country-specific emission factors.
- EPA published the “Federal Requirements Under the Underground Injection Control (UIC) Program for Carbon Dioxide Geologic Sequestration (GS) Wells Final Rule” (henceforth referred to as the “GS Rule”) (75 FR 77230; December 10, 2010). EPA determined that the GHGRP is complementary to and builds on EPA’s UIC permit requirements. Requirements under the UIC program are focused on demonstrating that underground sources of drinking water are not endangered as a result of CO₂

injection into the subsurface, while requirements under the GHGRP through Subpart RR enable reporters to quantify the amount of CO₂ that is geologically sequestered. For example, the UIC Class VI permit (including the Testing and Monitoring Plan) and Subpart RR's monitoring, reporting, and verification plan have separate monitoring objectives.

- EPA reviewed the Internal Revenue Service (IRS) Notice 2009-83 Credit for Carbon Dioxide Sequestration under Section 45Q. To claim the credit, a taxpayer must follow general monitoring and verification principles, calculate CO₂ sequestered in the fiscal year using a mass-balance equation, and report to IRS the amount of qualified CO₂ sequestered in the fiscal year. However, the level of reporting and transparency of the IRS data collected would not meet the verification needs of the GHGRP. The IRS reporting requirement expires after 75 million metric tons of CO₂ is reported as sequestered to IRS, data reporting is only as robust as to meet the standards in the case of an IRS audit, and the IRS does not outline procedures for quantifying and reporting any CO₂ leakage that may occur as is necessary for the rule. Therefore, EPA has concluded that the IRS data would not meet the needs outlined in the GHGRP.
- A number of programs at the state, tribal, territorial, and local level require emission sources in their respective jurisdictions to monitor and report GHG emissions (e.g., California, Massachusetts, North Carolina, and New Jersey). To reduce burden on reporters and program agencies, the Agency shares emissions data with the exception of any CBI with relevant agencies or approved entities using, where practical, shared tools, and infrastructure.

3(b) Public Notice Required Prior to Information Collection Request (ICR) Submissions to OMB

This Supporting Statement is appended to an FR notice that was published when the ICR was submitted to the OMB in compliance with the Paperwork Reduction Act (44 USC 3501 *et seq.*). The public comment period for this notice is 30 days. EPA also published a notice in the FR on November 5, 2015, announcing plans to submit this ICR renewal request to OMB. The public comment period for that notice was 60 days. EPA received comments to that notice from American Petroleum Institute, Clean Air Task Force, and an anonymous commenter. The comments as well as the EPA responses to those comments can be found in the Response to Comment document which is available in the Air Docket for this ICR (Docket ID Number EPA-HQ-OAR-2012-0333).

3(c) Consultations

To learn of ways to minimize burden on reporters, EPA engages in consultations with reporters on a regular basis. Since the GHGRP's inception, EPA has conducted over 130 training webinars reaching over 16,000 people and has responded to approximately 33,000 questions received by our help desk. EPA also communicates with GHGRP reporters directly after every data submission deadline during our annual verification period. The program generally maintains an open-door policy and has consulted on numerous occasions with trade associations as well as

individual companies with issues or concerns. As a result of these consultations, EPA has identified specific sections of the rule language that could be clarified or did not have the intended effect. EPA has promulgated amendments to the rule to resolve these issues and to correct technical and editorial errors that have been identified.

To monitor the usefulness of this data collection, the GHGRP staff are in regular communication with other EPA programs that use the data, such as voluntary and mandatory GHG reduction programs within the Office of Air. EPA also consults regularly with State, local, and tribal environmental control agencies, environmental groups, research entities, and other nongovernmental organizations.

In addition, EPA contacted an individual from each of seven companies that report to the GHGRP to request consultation about the GHGRP cost numbers that were proposed on November 5, 2015 (80 FR 68534). These seven companies and the subparts for which their facilities report are shown in Exhibit 3.1. EPA did not receive any responses.

Exhibit 3.1 Consultations

Parent Company	Applicable Subparts
AES	C, D, PP
Cemex	C, H, S
Georgia Pacific	C, AA, TT
Waste Management	C, HH
Intel	C, I
CF Industries	C, G, PP, V
Milliken	C

3(d) Effects of Less Frequent Collection

Annual reporting of the data is necessary to ensure that the Agency's objectives for the GHGRP are met. Annual reporting is critical for assessing year-to-year variations in emissions both at the facility and sector level. With less frequent reporting, the EPA would be unable to discern multi-year trends. As the Agency evaluates potential GHG emission reduction opportunities, it is critical to be able to analyze up-to-date, multi-year data for all sectors covered by the program. For example, GHGRP collects critical information necessary to evaluate potential GHG reduction approaches, such as number of facilities in a sector, production or capacity of each facility, abatement technologies used across a sector, number of facilities using continuous emission monitoring systems, and chemical-specific GHG emission information. These data are essential for understanding the sources that would be impacted by potential regulations, emissions monitoring approaches and abatement technologies currently employed within a sector, and the general emissions profile of the industry. Furthermore, an annual collection frequency supports the critical linkage (described in section 2(b) of this document) between the GHGRP and its data sharing with the Inventory, an annual reporting requirement of the U.S. Government and led by EPA to the United Nations Framework Convention on Climate Change.

Annual GHG data also allow EPA to monitor and assess the combined result of multiple efforts to reduce GHG emissions. Specifically for the period covered by this ICR renewal (2016 – 2018), annual reporting will allow the Agency to effectively track the success of both recent and upcoming climate change regulations as well as other efforts undertaken to reduce emissions. In addition, certain data that are inputs to emission equations were collected by facilities between 2010 and 2014 but were deferred for reporting to EPA until March 31, 2015, to give EPA time to evaluate industry concerns over competitive harm from their disclosure. Some of these data, including Subpart W equipment counts, flare combustion efficiency, and volume of sales oil from all wells, were determined not to have disclosure concerns and were reported by facilities in 2015. Collection of these inputs to emission equations from 2016-2018 will allow EPA to analyze year-to-year trends in these data for the first time. Other data that were deferred from reporting until 2015 were determined likely to cause substantial competitive harm if disclosed and are now submitted to the IVT rather than reported to the EPA, as discussed in Section 1(b) of this document. The IVT, first used in 2015, has allowed the Agency to improve its verification of emissions by using entered inputs to calculate emissions and conducting verification checks on the inputs to the equations. Receiving annual data in 2016-2018 will allow EPA to analyze year-to-year trends on multiple years of data collected under this improved verification approach.

With annual data, stakeholders can monitor changes in facility emissions over time with respect to comparable facilities in the industry. Annual reporting also lines up with the reporting frequency of all existing State GHG reporting programs as well as other Agency and State programs that require reporting of environmental data.

The frequency with which facilities and suppliers subject to the GHGRP monitor, sample, or measure data varies across the 41 subparts, from weekly to annually. These collection frequencies are necessary to ensure adequate data quality and were designed to match the variability of activities conducted by the source category.

3(e) General Guidelines

Although the GHGRP generally has a three year requirement for record retention consistent with the retention period specified in the general information collection guidelines in 5 CFR 1320.5(f) of the OMB regulations implementing the Paperwork Reduction Act, facilities using the verification software within e-GGRT called IVT for any subpart are required to retain all records for five years.

The EPA has determined that five years is a reasonable time period given the large number of reporters and the likely increase in follow-up activities due to IVT. It is important that relevant records are available to the EPA for follow-up activities with facilities, including on-site audits if necessary, regarding potential errors, discrepancies, or questions. Should an EPA inspector visit a facility, it is important to be able to examine not only the current year's records but those from previous years as well. Employing year-to-year comparisons are useful for verifying the current year's data. A 5-year record retention period ensures the availability of relevant records for the follow-up activities described above. EPA proposed the change from three to five years for record retention for some facilities through a rulemaking process and took all comments received into consideration upon promulgating the final action.

This collection of information is consistent with all other OMB guidelines under 5 CFR 1320.5.

3(f) Confidentiality

Data collected under the GHGRP must be made available to the public unless the data qualify for CBI treatment under the CAA and EPA regulations. EPA typically makes CBI determinations under the CAA on a case-by-case basis under 40 CFR 2.301. Due to the large numbers of entities reporting under the GHGRP and the large number of data reporting elements, EPA concluded that case-by-case determinations would not result in a timely release of emission data and other non-CBI data (75 FR 39094; July 7, 2010). Therefore, the EPA has published confidentiality determinations for most information reported under the GHGRP (76 FR 30782; May 26, 2011, 77 FR 48072; August 13, 2012, 77 FR 51477; August 24, 2012, 78 FR 68162; November 13, 2013, 78 FR 71904; November 29, 2013, 79 FR 3507; January 22, 2014, 79 FR 63750; October 24, 2014, 79 FR 70352; November 25, 2014, and 80 FR 64262; October 22, 2015). These confidentiality determinations specify which data reporting elements in Part 98: (1) are CBI, (2) are non-CBI, and (3) are emission data (i.e., ineligible for CBI protection). All data determined by the EPA to be CBI are safeguarded in accordance with regulations in 40 CFR Chapter 1, Part 2, Subpart B.

3(g) Sensitive Questions

This information collection does not ask any questions concerning sexual behavior or attitudes, religious beliefs, or other matters usually considered private.

4. THE RESPONDENTS AND THE INFORMATION REQUESTED

The respondents in this information collection include owners and operators of facilities that must report their GHG emissions to EPA to comply with the GHGRP rule. To facilitate the analysis, EPA has divided respondents into groups that align with the source categories identified in the rule.

This section lists the industry sectors (i.e., GHG source categories) that must report to the GHGRP, the data items required of program participants, and the activities in which participants must engage to collect, assess, and in some cases submit the required data items.

4(a) Respondents/North American Industrial Classification Systems (NAICS) Codes

Reporting facilities include, but are not limited to, those operating one or more units that exceed the CO₂e threshold for the industry sectors listed below or those in the categories in which all must report, such as petroleum refining facilities and all other large emitters listed in Table A-3 of 40 CFR 98.2(a)(1). Additionally, the GHGRP also requires reporting of certain emissions information associated with mobile sources (e.g., for permit applications or emissions control certification testing procedures).

Industry sectors are listed below by their corresponding subpart of the rule and their NAICS code for reference.

Part and Subpart	NAICS code(s)
Parts 86, 87, 89, 90, 94, 1033, 1039, 1042, 1045, 1048, 1051, 1054, 1064, 1065	481 Air transportation; 482 Rail transportation; 483 Water transportation
Part 98	
C. General Stationary Fuel Combustion Sources	Facilities operating boilers, process heaters, incinerators, turbines, and internal combustion engines: 211 Extractors of crude petroleum and natural gas; 321 Manufacturers of lumber and wood products; 322 Pulp and paper mills; 325 Chemical manufacturers; 324 Petroleum refineries, and manufacturers of coal products; 316, 326, 339 Manufacturers of rubber and miscellaneous plastic products; 331 Steel works, blast furnaces; 332 Electroplating, plating, polishing, anodizing, and coloring; 336 Manufacturers of motor vehicle parts and accessories; 221 Electric, gas, and sanitary services; 622 Health services; 611 Educational services
D. Electricity Generation	221112 Fossil-fuel fired electric generating units, including units owned by federal and municipal governments and units located in Indian Country
E. Adipic Acid Production	325199 Adipic acid manufacturing facilities
F. Aluminum Production	331312 Primary Aluminum production facilities

Part and Subpart	NAICS code(s)
G. Ammonia Manufacturing	325311 Anhydrous and aqueous ammonia manufacturing facilities
H. Cement Production	327310 Portland Cement manufacturing plants
I. Electronics Manufacturing	334111 Microcomputers manufacturing facilities; 334413 Semiconductor, photovoltaic cells (PV) (solid-state) device manufacturing facilities; 334419 Liquid crystal display (LCD) unit screens manufacturing facilities; 334419 Microelectromechanical devices (MEMS) manufacturing facilities
K. Ferroalloy Production	331112 Ferroalloys manufacturing facilities
L. Fluorinated GHG Production	325120 Industrial gases manufacturing facilities
N. Glass Production	327211 Flat glass manufacturing facilities; 327213 Glass container manufacturing facilities; 327212 Other pressed and blown glass and glassware manufacturing facilities
O. HCFC-22 Production and HFC-23 Destruction	325120 Chlorodifluoromethane manufacturing facilities
P. Hydrogen Production	325120 Hydrogen manufacturing facilities
Q. Iron and Steel Production	331111 Integrated iron and steel mills, steel companies, sinter plants, blast furnaces, basic oxygen process furnace (BOPF) shops
R. Lead Production	331419 Primary lead smelting and refining facilities; 331492 Secondary lead smelting and refining facilities
S. Lime Manufacturing	327410 Calcium oxide, calcium hydroxide, dolomitic hydrates manufacturing facilities
T. Magnesium Production	331419 Primary refiners of nonferrous metals by electrolytic methods; 331492 Secondary magnesium processing plants
U. Miscellaneous Uses of Carbonate	Facilities included elsewhere
V. Nitric Acid Production	325311 Nitric acid manufacturing facilities
W. Petroleum and Natural Gas Systems	486210 Pipeline transportation of natural gas; 221210 Natural gas distribution facilities; 21111 Extractors of crude petroleum and natural gas; 211112 Natural gas liquid extraction facilities
X. Petrochemical Production	32511 Ethylene dichloride manufacturing facilities; 325199 Acrylonitrile, ethylene oxide, methanol manufacturing facilities; 325110 Ethylene manufacturing facilities; 325182 Carbon black manufacturing facilities
Y. Petroleum Refineries	324110 Petroleum refineries
Z. Phosphoric Acid Production	325312 Phosphoric acid manufacturing facilities
AA. Pulp and Paper Manufacturing	322110 Pulp mills; 322121 Paper mills; 322130 Paperboard mills
BB. Silicon Carbide Production	327910 Silicon carbide abrasives manufacturing facilities
CC. Soda Ash Manufacturing	325181 Alkalis and chlorine manufacturing facilities, 212391 Soda ash, natural, mining and/or beneficiation
DD. Electrical Equipment Use	221121 Electric bulk power transmission and control facilities

Part and Subpart	NAICS code(s)
EE. Titanium Dioxide Production	325188 Titanium dioxide manufacturing facilities
FF. Underground Coal Mines	212113 Underground anthracite coal mining operations; 212112 Underground bituminous coal mining operations
GG. Zinc Production	331419 Primary zinc refining facilities; 331492 Zinc dust reclaiming facilities, recovering from scrap and/or alloying purchased metals
HH. Municipal Solid Waste Landfills	562212 Solid waste landfills; 221320 Sewage Treatment Facilities
II. Industrial Wastewater Treatment	322110 Pulp mills; 322121 Paper mills; 322122 Newsprint mills; 322130 Paperboard mills; 311611 Meat processing facilities; 311411 Frozen fruit, juice, and vegetable manufacturing facilities; 311421 Fruit and vegetable canning facilities; 325193 Ethanol manufacturing facilities; 324110 Petroleum refineries
LL. Suppliers of Coal-based Liquid Fuels	211111 Coal liquefaction at mine sites
MM. Suppliers of Petroleum Products	324110 Petroleum refineries
NN. Suppliers of Natural Gas and Natural Gas Liquids	221210 Natural gas distribution facilities; 211112 Natural gas liquid extraction facilities
OO. Suppliers of Industrial Greenhouse Gases	325120 Industrial greenhouse gas manufacturing facilities
PP. Suppliers of Carbon Dioxide	325120 Industrial greenhouse gas manufacturing facilities
QQ. Importers and Exporters of Pre-charged Equipment and Closed-Cell Foams	423730 Air-conditioning equipment (except room units) merchant wholesalers; 333415 Air-conditioning equipment (except motor vehicle) manufacturing; 336391 Motor vehicle air-conditioning manufacturing; 423620 Air-conditioners, room, merchant wholesalers; 443111 Household Appliance Stores; 423730 Automotive air-conditioners merchant wholesalers; 326150 Polyurethane foam products manufacturing; 335313 Circuit breakers, power, manufacturing; 423610 Circuit breakers merchant wholesalers
RR. Geologic Sequestration of Carbon Dioxide	211 Oil and gas extraction projects using CO ₂ enhanced oil and gas recovery; 211111 or 211112 Projects that inject acid gas containing CO ₂ underground; N/A CO ₂ geologic sequestration projects
SS. Electrical Equipment Manufacture or Refurbishment	33531 Power transmission and distribution switchgear and specialty transformers manufacturing facilities
TT. Industrial Waste Landfills	562212 Solid waste landfills; 322110 Pulp mills; 322121 Paper mills; 322122 Newsprint mills; 322130 Paperboard mills; 311611 Meat processing facilities; 311411 Frozen fruit, juice, and vegetable manufacturing facilities; 311421 Fruit and vegetable canning facilities; 221320 Sewage treatment facilities

Part and Subpart	NAICS code(s)
UU. Injection of Carbon Dioxide	211 Oil and gas extraction projects using CO ₂ enhanced oil and gas recovery; 211111 or 211112 Projects that inject acid gas containing CO ₂ underground
Mobile Sources	333618 Heavy-duty, non-road, aircraft, locomotive, and marine diesel engine manufacturing; 336312 Small non-road, and marine spark-ignition engine manufacturing facilities; 336999 Personal watercraft manufacturing facilities; 336991 Motorcycle manufacturing facilities

4(b) Information Requested

(i) Data Items

Reporting and Recordkeeping Requirements

The GHGRP applies to certain facilities that directly emit GHGs or inject CO₂ underground and to certain suppliers of products that contain GHGs. Applicability depends on the source categories located at the facility and, for some source categories, the emission level or production capacity. Fossil fuel and industrial GHG suppliers, motor vehicle and engine manufacturers, and facilities that emit 25,000 metric tons or more of CO₂e/year report GHG data to EPA annually.

Specifically, the facilities in the source list of Table A-3 of 40 CFR 98.2(a)(1) are subject to an all-in threshold, in which they report emissions regardless of a CO₂e/year emissions threshold. EPA established the all-in source categories for simplification because all or almost all of the sources in these subparts have emissions well over the 25,000 CO₂e/year threshold. These emitters report all emissions from all-in emission source categories as well as threshold source categories (Table A-4 of 40 CFR 98.2(a)(2) source list), stationary fuel combustion sources (Subpart C), and miscellaneous use of carbonates (Subpart U). Suppliers in the source list of Table A-5 of 40 CFR 98.2(a)(4) report all applicable products in Table A-5.

In addition, facilities that do not contain sources listed in Table A-3 of 40 CFR 98.2(a)(1), but that emit at least 25,000 metric tons CO₂e/year in combined emissions from stationary combustion sources and other sources listed in Table A-4 of 40 CFR 98.2(a)(2) report emissions from Subpart C), Subpart U, and all applicable source categories listed in Table A-4 of 40 CFR 98.2(a)(2). Facilities with only combustion emissions that emit at least 25,000 metric tons CO₂e/year are only required to report emissions from combustion sources.

Respondents comply with the following categories of requirements (if applicable): the General Provisions applicable to all sources; stationary combustion; and requirements applicable to other specific source categories identified in Subparts D through UU of the rule.

In addition, vehicle and engine manufacturers subject to the requirements of CFR parts 86, 87, 89, 90, 94, 1033, 1039, 1042, 1045, 1048, 1051, 1054, and 1065 report CO₂, N₂O, and CH₄ emissions associated with the mobile sources that they produce.

Appendix B contains a list of the reporting requirements applicable to all facilities as well as those specific to each source category. Appendix C contains a similar list for recordkeeping requirements.

(ii) Respondent Activities

The owner or operator of a facility or supplier that is subject to the GHGRP's reporting requirements reports total annual GHG emissions in metric tons of CO₂e, as applicable. The primary tasks that respondents perform include:

1. Implementing and updating, as necessary, appropriate monitoring plans for each affected source and each affected unit at a source, as applicable;
2. Monitoring activities, where required;
3. Conducting operation and maintenance activities associated with the monitoring, including quality assurance activities;
4. Ensuring data quality, preparing annual reports for submission to EPA, and submitting these reports to EPA;
5. Potentially responding to questions or error messages from EPA; and
6. Maintaining records for a period of three years or five years, as specified in the GHGRP.

Respondents that use a continuous emissions monitoring system (CEMS) also conduct tests to certify the operations of monitors, submit the results of these tests, and record emissions data (this activity generally is performed electronically).

Reports present the annual mass GHG emissions from each source category separately. The calculations used to determine GHG emissions, the frequency at which those calculations are required, the methods used to estimate missing data, and the QA/QC requirements depend on the specific source category.

5. THE INFORMATION COLLECTED – AGENCY ACTIVITIES, COLLECTION METHODS, AND INFORMATION MANAGEMENT

5(a) Agency Activities

EPA activities include the monitoring and verification of emission reports, database and software maintenance, communication and outreach, and program evaluation.

5(b) Collection Methodology and Management

EPA has established a central repository of data for all respondents, the web-based Electronic Greenhouse Gas Reporting Tool (e-GGRT). Respondents report data electronically, and EPA stores the data in the database. Facilities and suppliers subject to the GHGRP register online through the e-GGRT system.

All data are submitted to EPA electronically in e-GGRT except the one-time Electronic Signature Agreement (ESA) which is submitted on paper. The tool has an XML reporting schema that allows facilities to upload GHG data directly in lieu of using the web forms provided through e-GGRT. The XML reporting schema contains all data elements needed to comply with the GHGRP. The electronic reports submitted under the GHGRP are subject to the provisions of 40 CFR Part 3, specifying EPA systems to which electronic submissions must be made and the requirements for valid electronic signatures. Additionally, e-GGRT is designed to collect and store CBI.

The system follows Agency standards for design, security, data element and reporting format conformance, and accessibility. EPA designed the database in an attempt to minimize respondents' burden by integrating the new reporting requirements with existing data collection and data management systems, when feasible.

All facilities or suppliers must have a Designated Representative (DR) in order to report. The DR may appoint an Alternative Designated Representative (ADR) and multiple agents. The DR, ADR, and agents are all able to enter data and submit the electronic report. Before submitting a report, the DR (or ADR) must certify the annual report. An electronic signature device (e.g., a PIN or password) is required to submit a report.

EPA ensures data quality by conducting robust verification checks using both electronic software and manual review. EPA contacts facilities when annual reports contain potential errors, and the statute requires that the facilities either resolve the error or explain that it is not an error in a timely manner. EPA makes all data accessible to the public on a web-based, user-friendly publication tool called FLIGHT, as detailed in Section 2(b) of this document.

5(c) Small Entity Flexibility

EPA took several steps to minimize the impacts on small entities. The Agency met several times with industry trade associations to discuss the reporting options considered and

their possible impacts on small entities. EPA further minimized impacts on small entities by not requiring facilities below a certain emissions threshold to report their emissions.

Where feasible, EPA also uses existing GHG emissions estimation and reporting methodologies and provides simplified methodological options to reduce reporting burden. According to the Agency's analysis, a facility with stationary combustion units that have a maximum rated heat input capacity of less than 30 mmBtu/hr, operating full time with any type of fossil fuel, would not exceed 25,000 metric tons CO₂e/year. Exempting facilities based on combustion unit capacity has allowed for small entities to perform a simple calculation to determine if they are even required to estimate emissions for applicability purposes.

Additionally, EPA minimized the impact on small entities in Subpart NN (Suppliers of Natural Gas and Natural Gas Liquids) by amending the reporting threshold from an all-in threshold to a capacity-based threshold. EPA revised the applicability threshold so that only local distribution companies that deliver 460,000 thousand standard cubic feet (mscf) or more of natural gas per year are subject to the GHGRP (75 FR 79092; December 17, 2010).

The rule includes a mechanism in 40 CFR 98.2 to allow facilities and suppliers that report less than 25,000 metric tons of CO₂e/year for five consecutive years or less than 15,000 metric tons CO₂e/year for three consecutive years to cease annual reporting to EPA.

5(d) Collection Schedule

For each reporting year, facilities collect data and calculate emissions at varying frequencies, as described in the GHGRP, and summarized in Appendices B and C of this document. Facilities then submit GHG reports on March 31 of each calendar year for GHG emissions that occurred in the previous calendar year. EPA conducts a verification process of the data from April 1 through the end of September of each calendar year, and publishes the data in FLIGHT by October. During the verification period, EPA notifies facilities if their report contains potential errors. The regulation requires that these facilities resubmit their reports with corrected data or respond to the notification with an explanation of why it is not an error within 45 days of receiving the notification. Facilities may request a 30-day extension if necessary, which is automatically granted by EPA.

Facilities or suppliers that cease annual reporting as described in Section 5(c) of this document must first submit a notification to discontinue reporting to the Administrator no later than March 31 of the year immediately following the fifth (or third) consecutive year of emissions less than 25,000 (or 15,000) tons CO₂e/year. Likewise, facilities or suppliers that change operations such that all applicable GHG-emitting processes and operations cease to operate are exempt from reporting in the years following the year in which cessation of such operations occurs, provided that the owner or operator submits a notification to the Administrator no later than March 31 of the year immediately following the operation cessation.

6. ESTIMATING THE BURDEN AND COST OF THE COLLECTION

This section presents EPA's estimates of the burden and costs to respondents associated with the activities described in Section 4 of this document as well as the federal burden hours and costs associated with the activities described in Section 5(a) of this document. EPA estimates that, over the three years covered by this request, the total respondent burden associated with this reporting will average 739,187 hours per year and the cost of all respondents of the information collection will average \$87,831,801 per year.

Section 6(a) of this ICR provides estimates of burden (hours) for all respondent types. Section 6(b) contains estimates of respondent costs for the information collection. Section 6(c) summarizes federal burden and costs. Section 6(d) describes the respondent universe and the total burden and cost of this collection to respondents. Section 6(e) presents the bottom line burden and cost. Section 6(f) provides reasons for any change in burden. The burden statement for this information collection is in Section 6(g).

6(a) Estimating Respondent Burden

Respondent burden estimates are presented in Exhibit 6.1. EPA estimates that the total annual burden to all affected entities is 739,187 hours per year over the three years covered by this information collection. EPA also estimated the number of responses, or actions taken as a result of the rule, per respondent (facility) per year. Exhibit 6.1 of this document presents aggregate burden by sector only; for the details of burden calculations, please see the cost appendices.

6(b) Estimating Respondent Costs

Costs to respondents associated with this information collection include labor costs (i.e., the cost of labor by facility staff to meet the rule's information collection requirements) and non-labor costs (e.g., the cost of purchasing and installing monitoring equipment or contractor costs associated with providing the required information).

To calculate labor costs, EPA used an approach consistent with the ICRs associated with the GHGRP currently approved by OMB. For all but two subparts the labor rates are: \$66.25 for technical workers, \$79.36 for managers, \$28.48 for clerical support, and \$108.61 for legal support. Sector-specific labor rates are used for two subparts in the oil and gas industry (Subpart W and Subpart RR): \$129.83 for senior managers, \$118.86 for middle managers, \$99.18 for engineers, \$52.84 for technicians, and \$137.84 for geoscientists.¹ Non-labor costs (capital and O&M) for individual sectors are summarized in Exhibit 6-1.

¹ See Appendix D for details.

EPA estimates that the total annual cost to all affected non-federal entities is \$87.8 million over the three years covered by this information collection. Exhibit 6.1 presents aggregate costs by sector.

Appendix E contains the burden and costs for Subpart W, including the labor assumptions used for each activity required in Subpart W and the number of respondents expected in each industry segment. These costs and calculations are presented in Appendix E-1, Appendix E-2, and Appendix E-3 for Year 1, Year 2, and Year 3 of the ICR Renewal period, respectively. The assumptions are documented in Appendix E-4. The burden and costs related to select Subpart W reporters to comply with Subpart C reporting are presented in Appendix E-5, with the assumptions documented in Appendix E-6. The total burden and costs for each of the Subpart W industry segments are presented in Appendix E-7.

Appendix F contains the burden and costs related to Subpart C compliance, including the labor assumptions used for each activity required for each Tier. All assumptions are documented in Appendix F.

Appendix G contains the burden and costs for Subpart RR.

Exhibit 6.1 Annual Average Respondent Burden and Cost For the GHG Reporting Program

Source Category	Annual Average							
	Number of Respondents	Responses/ Respondent ^a	Total Responses ^b	Total Burden (hrs)	Total Labor Cost (\$)	Capital Cost (\$)	O&M Cost (\$)	Total Cost (\$)
C. Stationary Combustion (reporters with only Subpart) <small>c,d,e,f</small>	2,155	40	** Expressi on is faulty **	99,920	6,619,676	1,577,880	164,732	8,362,288
C. Stationary Combustion (reporters with Subpart C plus one or more subparts) <small>c,d,e,f</small>	1,395	40	** Expressi on is faulty **	68,568	4,542,662	63,216	916,640	5,522,519
D. Electricity Generation <small>c,d,g</small>	1,125	9	** Expressi on is faulty **	610	39,546	0	0	39,546
E. Adipic Acid Prod. <small>c,e,g</small>	3	28	** Expressi on is faulty **	429	28,087	0	8,799	36,885
F. Aluminum Production <small>c,d,e</small>	9	17	** Expressi on is faulty **	2,703	188,692	0	2,156	190,848
G. Ammonia Manufacturing <small>c,e,g</small>	23	107	** Expressi on is faulty	1,261	82,913	0	5,289	88,202

		510	** Expressi on is faulty **					
H. Cement Production ^{c,d,e,g}	93			12,068	815,619	0	2,67,310	1,082,928
		7	** Expressi on is faulty **	16,586	1,074,580	0	0	1,074,580
I. Electronics Manufacturing ^{c,d,g,h}	54							
		99	** Expressi on is faulty **					
K. Ferroalloy Production ^{c,e}	10			607	38,976	0	11,497	50,473
		7	** Expressi on is faulty **					
L. Fluorinated Greenhouse Gas Prod ^{c,g,i}	15			2,797	167,677	41,105	17,344	226,126
		102	** Expressi on is faulty **					
N. Glass Production ^{c,d,e}	108			5,211	341,703	0	6,208	347,911
O. HCFC-22 Production and HFC-23 Destruction ^{c,e}		92	** Expressi on is faulty **					
		4	** Expressi on is faulty **	614	36,629	0	0	36,629
P. Hydrogen Production ^{c,d,g,j}	107	23	** Expressi	3,799	244,028	0	86,114	330,142

Q. Iron and Steel Production ^{c,d,g,h}	126	92	** Expressi on is faulty **	36,745	2,095,712	0	326,367	2,422,079
R. Lead Production ^{c,e,g}	12	102	** Expressi on is faulty **	1,104	70,882	0	8,278	79,160
S. Lime Manufacturing ^{c,e,g}	76	544	** Expressi on is faulty **	3,711	243,248	0	0	243,248
T. Magnesium Production ^{c,s}	10	9	** Expressi on is faulty **	1,873	123,361	0	1,756	125,117
U. Misc. Uses of Carbonate ^{c,e,k}	14	102	** Expressi on is faulty **	675	44,295	0	805	45,100
V. Nitric Acid Production ^{c,d,e,g}	33	42	** Expressi on is faulty **	5,660	380,955	0	142,993	523,948
W. Petroleum and Natural Gas Systems ^{c,d,g,l}	2,305	235	541,675	263,049	26,198,920	1,280,041	8,341,288	35,820,249

		92	** Expressi on is faulty **					
X. Petrochemical Production ^{c,d,e,g}	64			13,083	831,334	0	680,285	1,511,619
		92	** Expressi on is faulty **					
Y. Petroleum Refineries ^{c,d,e}	140			55,148	3,539,060	190,629	246,420	3,976,110
		544	** Expressi on is faulty **					
Z. Phosphoric Acid Production ^{c,e}	12			579	37,967	0	0	37,967
		92	** Expressi on is faulty **					
AA. Pulp & Paper Manufacturing ^{c,e,g}	110			11,276	735,006	0	0	735,006
		37	** Expressi on is faulty **					
BB. Silicon Carbide Production ^{c,e}	1			54	3,536	0	230	3,766
		93	** Expressi on is faulty **					
CC. Soda Ash Manufacturing ^{c,e}	4			533	35,781	0	8,324	44,105
DD. Sulfur Hexafluoride (SF6) from Electric Power Systems ^{c,d,g}	71	7	** Expressi on is	5,355	322,548	0	0	322,548

EE. Titanium Dioxide Production ^{c,e}	7	93	** Expressi on is faulty **	394	25,777	0	3,219	28,996
FF. Underground Coal Mines ^{c,d,g}	124	21	** Expressi on is faulty **	5,115	326,317	275,436	570,261	1,172,014
GG. Zinc Production ^{c,e}	6	108	** Expressi on is faulty **	349	22,505	0	5,519	28,024
HH. Municipal Landfills ^{c,d,g}	1,060	92	** Expressi on is faulty **	40,192	2,554,570	75,428	145,564	2,775,562
II. Industrial Wastewater ^{c,d,g}	149	7	** Expressi on is faulty **	3,671	234,428	374,160	1,340,568	1,949,156
LL. Suppliers of Coal-based Liquid Fuels MM. Suppliers of Petroleum Products ^{c,g}	239	99	** Expressi on is faulty **	10,148	755,359	0	0	755,359
NN. Supplies of Natural Gas and Natural Gas Liquids ^{c,d,g}	501	53	**	32,866	2,093,509	0	0	2,093,509

		15	** Expressi on is faulty **					
OO. Suppliers of Industrial GHG ^{c,g}	63			3,514	229,459	0	0	229,459
		36	** Expressi on is faulty **					
PP. Suppliers of CO ₂ ^{c,d,g}	145			6,561	421,906	0	0	421,906
		7	** Expressi on is faulty **					
QQ - Imports and Exports of Fluorinated GHGs in Products ^{c,g}	39			2,731	179,904	0	0	179,904
RR. Geologic Sequestration of Carbon Dioxide ^{g,m}	5	Varies	Varies	3,085	435,689	229,647	1,776,420	2,441,756

Exhibit 6.1 Annual Average Respondent Burden and Cost For the GHG Reporting Program (continued)

Source Category	Annual Average							
	No. Respondents	Responses/ Respondent ^a	Total Responses ^b	Total Burden (hrs)	Total Labor Cost (\$)	Capital Cost (\$)	O&M Cost (\$)	Total Cost (\$)
SS - SF6 Equipment Producers ^{c,d,g}	6	7	** Expressi on is faulty **	264	15,260	0	83	15,343
TT -Industrial Landfills ^{c,d,e}	171	7	** Expressi on is faulty **	11,537	734,871	10,793	86,505	832,169
UU. Injection of Carbon Dioxide ^{c,g}	96	12	** Expressi on is faulty **	3,970	253,266	0	249,002	502,268
Mobile Sources	390	1	** Expressi on is faulty **	771	43,796	10,984,154	99,327	11,127,277
TOTALS	11,080	92	1,013,963	739,187	\$57,210,010	\$15,102,490	\$15,519,301	\$87,831,801

- ^a The number of responses per respondent are rounded.
- ^b Total Responses is the number of respondents multiplied by the number of responses per respondent. Because the number of responses per respondent are rounded, the calculated total responses may differ slightly from the numbers shown in Exhibit 6.1.
- ^c Number of respondents based on RY2014 data as of 2/26/16.
- ^d Some facilities were subject to this subpart in 2014 but met the criteria at 98.2(i) to discontinue complying with the program after RY2014; they were subtracted from the number of respondents determined according to footnote “c”.
- ^e Five year requirement for record retention under GHGRP.
- ^f See Appendix F for details.
- ^g Three year requirement for record retention under GHGRP.
- ^h See 78 FR 68162 (November 13, 2013) for significant rule changes since the previous ICR Renewal.
- ⁱ See 79 FR 73750 (December 11, 2014) for rule changes since the previous ICR Renewal.
- ^j Additional reporting elements were added as a result of the Inputs Rule (79 FR 63750, October 24, 2014).
- ^k Burden and costs were not calculated for Subpart U in past years. EPA based costs on Subpart N due to similarities in testing and calculations required by the rules.
- ^l See Appendix E for details.
- ^m See Appendix G for details.

6(c) Estimating Agency Burden and Cost

This section describes the burden and cost to the federal government associated with this information collection. Federal activities under this information collection include EPA oversight of the reporting program and required reporting by federally owned GHG generating facilities.

EPA Burden and Cost for Program Oversight

EPA activities associated with the GHG reporting program include oversight and implementation of the reporting program, e.g., monitoring and verification of emission reports, database and software maintenance, communication and outreach, and program evaluation. EPA estimates that it will devote up to 12 full time equivalents (FTEs), or an estimated 24,960 hours to these activities.

To develop EPA labor costs, EPA estimated the average hourly labor rate for salary and overhead and benefits for Agency staff to be \$53.42. To derive this figure, EPA multiplied the hourly compensation at GS-12, Step 5 on the 2015 GS pay scale (\$33.39) by the standard government benefits multiplication factor of 1.6 to account for overhead and benefits.²

In addition to the labor cost, EPA will incur a non-labor cost of approximately \$10.7 million in each of the three years of the information collection for developing guidance, training, responding to stakeholders, communication and outreach, database maintenance, and other contractor support.

Exhibit 6.2 presents the annual Agency burden and cost.

6(d) Estimating the Respondent Universe and Total Burden and Costs

The number of respondents in each sector that perform the required activities under this information collection is presented in Exhibit 6.1. The required activities depend on whether the facility must report its GHG emissions and on the applicable sector-specific reporting requirements. These activities are described in Section 4(b) of this ICR.

6(e) Bottom Line Burden Hours and Costs

The bottom line burden hours and costs are shown in Exhibit 6.3.

² http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2015/GS_h.pdf

Exhibit 6.2 Annual Agency Burden and Cost

Information Collection Activity	Annual Responses	Total Annual Burden (hrs)	Labor Cost	Non-Labor Cost	Total Annual Cost
Developing Guidance, Conducting Training, Audits, and General Oversight	1	24,960	\$1,333,363	\$10,666,667	\$12,000,130

Exhibit 6.3 Bottom Line Annual Burden and Cost

Number of Respondents	11,080			From Exhibit 6.1
Total Annual Responses	1,013,963			From Exhibit 6.1
Number of Responses per Respondent	92 =	1,013,963		Total annual responses from above / Total respondents from above
		11,080		
Total Respondent Hours	739,187			From Exhibit 6.1
Hours per Response	0.73 =	739,187		Total annual hours from above / Total responses from above
		1,013,963		
Total Labor Costs	57,210,010			From Exhibit 6.1
Annual O&M and Capital Cost	30,621,791			From Exhibit 6.1
Total Respondent Cost (labor + non)	87,831,801			From Exhibit 6.1
Total Hours (Respondents and Agency)	764,147	739,187		Total respondent hours from above + Total EPA hours from Exhibit 6.2
		24,960		
Total Cost (Respondents and Agency)	\$99,831,931	\$87,831,801		Total respondent cost from above + Total EPA cost from Exhibit 6.2
		\$12,000,130		

6(f) Reasons for Change in Burden

This section presents the change in burden and explains the reasons for the change in burden. Exhibit 6.4 summarizes the adjustments that have affected the overall burden inventory for the final GHGRP ICRs. There is a decrease of 241,845 hours and a decrease of \$3,016,199 in the total estimated respondent burden compared with that identified in the GHGRP ICR renewed by OMB in 2013. This change reflects a number of updates in this ICR renewal as compared to the previous ICR renewal. Overall, EPA adjusted labor rates to match the 2014 BLS labor rates, adjusted capital costs to reflect 2013 dollars, and adjusted the number of respondents by taking the actual number of respondents for each subpart in reporting year 2014 (RY2014) and subtracting the number of respondents for each subpart that were eligible to discontinue reporting after RY2014 per the criteria in 40 CFR Part 98.2(i).

Several subpart specific updates were also made.

- First, EPA accounted for new segments and reporters added to Subpart W to improve the Agency's coverage of emissions from oil and natural gas systems. EPA also reevaluated the respondent costs related to all segments of Subpart W to more carefully and accurately reflect the activities conducted by respondents. This includes the addition of costs required of respondents subject to the oil and natural gas systems source category to monitor and report combustion emissions under both Subparts W and C.
- Second, EPA reevaluated the respondent costs related to monitoring and reporting combustion emissions to Subpart C. Combustion emission costs had been estimated by subpart and aggregated with each subpart's process emission costs. In preparing this renewal, EPA found that those costs were outdated as they reflected projected rather than actual activity data of reporters. In addition, combustion emission costs were overestimated for facilities reporting for two or more subparts. As such, for this ICR renewal, EPA subtracted the old combustion emission costs from the total burden estimate, re-calculated the costs of monitoring and reporting combustion emissions more carefully and accurately, and applied those calculations to actual activity data in a uniform way across the rule. With a few exceptions, Exhibit 6.1 of this Supporting Statement presents the costs for subpart-specific process emissions in each subpart-specific row and the costs for all combustion emissions in two new Subpart C rows. For Iron and Steel Production (Subpart Q), Petrochemical Production (Subpart X), Petroleum Refineries (Subpart Y), Pulp and Paper Manufacturing (Subpart AA), and Municipal Solid Waste Landfills (Subpart HH), however, combustion costs were so intertwined with process emissions costs that they could not be separated. For those subparts, as well as for subpart W discussed above, the costs of monitoring and reporting combustion emissions continue to be accounted for and presented in the subpart-specific rows along with process emissions. See Appendix F of this Supporting Statement for more details.

- Third, for Subpart AA, capital costs and operation and maintenance costs were reduced to \$0 because the costs were originally determined assuming the use of CO₂ CEMS. The industry does not employ the use of CEMS and the industry is unlikely to begin using CEMS in the foreseeable future.
- Fourth, EPA decreased costs of Electronics Manufacturing (Subpart I) as the result of amendments to the calculation and monitoring methodologies that were finalized in 2013.
- Fifth, EPA increased costs of Subpart RR to reflect the latest industry cost analyses and to assume an increase in CO₂-EOR projects over the three years covered by this information collection (see Appendix G of this Supporting Statement).
- Sixth, EPA increased costs associated with complying with Miscellaneous Uses of Carbonate (Subpart U) because compliance costs were not previously included. These changes are the result of a program adjustment.

Exhibit 6.4 Summary of Changes in Annual Burden

Title	Current OMB Control Number	Agency Tracking Number	Number of Respondents	Total Burden (hrs)	Total Labor Cost (\$)	Capital Cost (\$)	O&M Cost (\$)	Total Cost (\$)
Information Collection Request for the Greenhouse Gas Reporting Program								
Current Inventory	2060-0629	2300.10	11,039	981,032	62,655,000	17,252,763	10,940,000	90,848,000
Revised Inventory	2060-0629	2300.17	11,080	739,187	57,210,010	15,102,490	15,519,301	87,831,801
Change			41	-241,845	-5,444,990	-2,150,273	4,579,301	-3,016,199
Reason for Change in Burden <ul style="list-style-type: none"> • Adjusted the number of respondents • Adjusted labor rates • Adjusted capital costs and O&M costs for Subpart AA • Added costs related to Subpart U • Changed LOE assumptions for Subpart C (see Appendix E of this Supporting Statement) • Changed LOE assumptions for Subpart W (see Appendix F of this Supporting Statement) • Changed LOE assumptions for Subpart RR (see Appendix G of this Supporting Statement) 								

6(g) Burden Statement

The respondent reporting burden for this collection of information is estimated to average 739,187 hours per year for a three-year period. The average annual burden to EPA for this period is estimated to be 24,960 hours for oversight activities. The annual public reporting and recordkeeping burden for this collection of information is estimated to average 0.73 hours per response.

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.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OAR-2012-0333, which is available for online viewing at <http://www.regulations.gov>, or in person viewing at the Air and Radiation docket in the EPA Docket Center (EPA/DC), EPA West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, D.C. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation docket is (202) 566-1742. An electronic version of the public docket is available at <http://www.regulations.gov>. This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OAR-2012-0333 and OMB Control Number 2060-0629 on any correspondence.