# SUPPORTING STATEMENT ENVIRONMENTAL PROTECTION AGENCY

# Standards of Performance for Greenhouse Gas Emissions from Newly Constructed, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (40 CFR part 60, subpart TTTT)

### Part A of the Supporting Statement

### 1. Identification of the Information Collection

### (a) Title and Number of the Information Collection

"Recordkeeping and Reporting Requirements for Standards of Performance for Greenhouse Gas Emissions from Newly Constructed, Modified, and Reconstructed Electric Utility Generating Units (40 CFR Part 60, Subpart TTTT)." The standards would establish standards of performance for carbon dioxide (CO<sub>2</sub>) emissions from electric utility generating units (EGUs). An EGU is any boiler, integrated gasification combined cycle (IGCC) unit, or combustion turbine (CT) (in either simple cycle or combined cycle configuration) that meets the rule's applicability criteria. An information collection request (ICR) has been prepared in support of the standards being established under subpart TTTT. The Environmental Protection Agency (EPA) ICR tracking number is 2465.03. Separate ICR documents were prepared and submitted to OMB for the proposed standards for newly constructed EGUs (EPA ICR number 2465.02) and the proposed standards for modified and reconstructed EGUs (EPA ICR number 2506.03). Because the CO<sub>2</sub> standards for newly constructed, modified, and reconstructed EGUs will be included in the same new subpart (40 CFR part 60, subpart TTTT) and are being finalized in the same action, the ICR document for this action includes estimates of the information collection burden on owners and operators of newly constructed, modified, and reconstructed EGUs. This ICR was developed for the 3-year period following publication of the final rule.

### (b) Short Characterization

On June 25, 2013, in conjunction with the announcement of his Climate Action Plan (CAP), President Obama issued a Presidential Memorandum directing the EPA to issue a new proposal to address carbon pollution from new power plants by September 30, 2013, and to issue "standards, regulations, or guidelines, as appropriate, which address carbon pollution from modified, reconstructed, and existing power plants." Among stationary sources in the U.S., fossil fuel-fired EGUs are by far the largest emitters of greenhouse gas (GHG) pollution, primarily in the form of CO<sub>2</sub>. The EPA in 2009 found that by causing or contributing to climate change, GHGs endanger both the public health and the public welfare of current and future generations.

Pursuant to authority in section 111(b) of the Clean Air Act (CAA), on September 20, 2013, EPA Administrator Gina McCarthy signed proposed carbon pollution standards for newly constructed fossil fuel-fired power plants. 79 FR 1430 (January 8, 2014) ("January 2014 proposal"). Specifically, the EPA proposed new source performance standards (NSPS) to limit emissions of CO<sub>2</sub> from newly constructed fossil fuel-fired electric utility steam generating units

and newly constructed natural gas-fired stationary combustion turbines. The final standards for newly constructed fossil fuel-fired EGUs apply to those sources that commenced construction on or after January 8, 2014.

On June 2, 2014, Administrator McCarthy signed proposed standards of performance, also pursuant to CAA section 111(b), to limit emissions of CO<sub>2</sub> from modified and reconstructed fossil fuel-fired electric utility steam generating units and natural gas-fired stationary combustion turbines. 79 FR 34959 (June 18, 2014) ("June 2014 proposal"). The final standards for modified and reconstructed fossil fuel-fired EGUs apply to those sources that that modify or reconstruct on or after June 18, 2014. The CAA and EPA's regulations define an NSPS "modification" as a physical or operational change that increases the source's maximum achievable hourly rate of emissions, with certain exceptions.<sup>1</sup> Under the EPA's CAA section 111 standards of performance for new stationary sources, reconstructed sources are defined, in general, as existing sources (i) that replace components to such an extent that the capital costs of the new components exceed 50 percent of the capital costs of an entirely new facility, and (ii) for which compliance with standards of performance for new sources is technologically and economically feasible.<sup>2</sup>

To be considered an EGU the unit must be (1) capable of combusting more than 250 MMBtu/h heat input of fossil fuel and (2) serve a generator capable of supplying more than 25 MW net to a utility distribution system (i.e., for sale to the grid). However, GHG standards are not being finalized for certain EGUs: (1) non-fossil fuel units subject to a federally enforceable permit that limits the use of fossil fuels to 10 percent or less of the heat input capacity on an annual basis; (2) combined heat and power units that are subject to a federally enforceable permit limiting annual net electric sales to the unit design net efficiency times their potential electric output or limiting annual electric sales to 219,000 MWh or less; (3) stationary combustion turbines that are not physically capable of combusting natural gas; (4) utility boilers and IGCC units that have always been subject to a federally enforceable permit limiting annual electric sales to 219,000 MWh or less; (5) municipal waste combustors that are subject to subpart Eb of part 60; and (6) commercial or industrial solid waste incineration units subject to subpart CCCC of part 60.

Consistent with the requirements of CAA section 111(b), the final standards reflect the degree of emission limitation achievable through the application of the best system of emission reduction (BSER) that the EPA has determined has been adequately demonstrated for each type of unit. The BSER determinations and final standards of performance for affected newly constructed, modified, and reconstructed EGUs are summarized below in Table 1.

### Table 1. Summary of BSER and Final Standards for Affected Sources

Affected Sources	BSER	Final Standards of Performance
Newly Constructed	Efficient new	1,400 lb CO <sub>2</sub> /MWh-gross.
Fossil Fuel-Fired	supercritical	
Steam Generating	pulverized coal	

<sup>1</sup> CAA §111(a)(4); 40 CFR 60.2, 60.14.

<sup>&</sup>lt;sup>2</sup> 40 CFR 60.15.

Units	(SCPC) utility boiler implementing partial carbon capture and storage (CCS)	
Modified Fossil Fuel-Fired Steam Generating Units	Most efficient generation at the affected source achievable through a combination of best operating practices and equipment upgrades	Sources making modifications resulting in an increase in $CO_2$ hourly emissions of more than 10 percent are required to meet a unit- specific emission limit determined by the unit's best historical annual $CO_2$ emission rate (from 2002 to the date of the modification); the emission limit will be no more stringent than: 1. 1,800 lb $CO_2/MWh$ -gross for sources with heat input > 2,000 MMBtu/h. <b>OR</b> 2. 2,000 lb $CO_2/MWh$ -gross for sources with heat input $\leq 2,000$ MMBtu/h.
Reconstructed Fossil Fuel-Fired Steam Generating Units	Most efficient generating technology at the affected source (supercritical steam conditions for the larger; and subcritical conditions for the smaller)	<ol> <li>Sources with heat input &gt; 2,000 MMBtu/h are required to meet an emission limit of 1,800 lb CO<sub>2</sub>/MWh-gross.</li> <li>Sources with heat input ≤ 2,000 MMBtu/h are required to meet an emission limit of 2,000 lb CO<sub>2</sub>/MWh-gross.</li> </ol>
Newly Constructed, Modified, and Reconstructed Fossil Fuel-Fired Stationary Combustion Turbines	Efficient natural gas combined cycled (NGCC) technology for natural gas-fired nominal base load units and clean fuels for nominal peaking and multi- fuel-fired units	<ol> <li>1,000 lb CO<sub>2</sub>/MWh-gross or 1,030 lb CO<sub>2</sub>/MWh-net for nominal base load natural gas-fired units.</li> <li>120 lb CO<sub>2</sub>/MMBtu for nominal peaking natural gas-fired units.</li> <li>120 to 160 lb CO<sub>2</sub>/MMBtu for multi-fuel-fired units.<sup>3</sup></li> </ol>

Fossil fuel-fired electric utility steam generating units

<sup>&</sup>lt;sup>3</sup> The emission standard for combustion turbines co-firing natural gas with other fuels is determined at the end of each operating month based on the amount of co-fired natural gas.

The final rule establishes standards of performance for newly constructed fossil fuel-fired steam generating units (steam generating units; utility boilers and IGCC units) based on the performance of a new SCPC unit implementing partial implementation of CCS technology as the BSER. The EPA is finalizing an emission standard for newly constructed fossil fuel-fired steam generating units at 1,400 lb  $CO_2/MWh$ -gross. The EPA finds that IGCC technology – either alone or implementing partial CCS – is not part of the BSER, but rather is an alternative compliance option. A newly constructed, highly efficient SCPC utility boiler burning bituminous coal will be able to meet this final standard of performance by capturing and storing approximately 16 percent of the  $CO_2$  produced from the facility. As an alternative compliance option, utilities and project developers will also be able to construct new steam generating units (both utility boilers and IGCC units) that meet the final standard of performance by co-firing with natural gas.

The EPA is also issuing final standards for steam generating units that implement "large modifications," (i.e., modifications resulting in an increase in hourly CO<sub>2</sub> emissions of more than 10 percent when compared to the source's highest hourly emissions in the previous 5 years). The EPA is not issuing final standards, at this time, for steam generating units that implement "small modifications" (i.e., modifications resulting in an increase in hourly CO<sub>2</sub> emissions of less than or equal to 10 percent when compared to the source's highest hourly emissions in the previous 5 years). The standards of performance for modified steam generating units that make large modifications are based on each affected unit's own best potential performance as the BSER. Specifically, such a modified steam generating unit will be required to meet a unit-specific CO<sub>2</sub> emission limit determined by that unit's best demonstrated historical performance (in the years from 2002 to the time of the modification). The EPA has determined that this standard based on each unit's own best potential performance can be met through a combination of best operating practices and equipment upgrades and that these steps can be implemented cost-effectively at the time when a source is undertaking a large modification. To account for facilities that have already implemented best practices and equipment upgrades, the final rule also specifies that modified facilities will not have to meet an emission standard more stringent than the corresponding standard for reconstructed steam generating units.

The EPA is not promulgating final standards of performance for, and is withdrawing the proposed standards for, modified steam generating sources that make modifications resulting in an increase of hourly  $CO_2$  emissions of less than or equal to 10 percent. As we indicated in the proposal, the EPA has been notified of very few modifications for criteria pollutant emissions from the power sector to which NSPS requirements have applied. As such, we expect that there will be few NSPS modifications for GHG emissions as well. Even so, we also recognize that the power sector is undergoing significant change and realignment in response to a variety of influences and incentives in the industry. We do not have sufficient information at this time, however, to anticipate the types of modifications that may result from these changes. In particular, we do not have sufficient information about the types of modifications, if any, that would result in increases in  $CO_2$  emissions of 10 percent or less, and what the appropriate standard for such sources would be.

For reconstructed steam generating units, the EPA is finalizing standards based on the performance of the most efficient generating technology for these types of units as the BSER

(i.e., reconstructing the boiler if necessary to use steam with higher temperature and pressure, even if the boiler was not originally designed to do so.) The emission standard for these sources is 1,800 lb CO<sub>2</sub>/MWh-gross for large sources, (i.e. those with a heat input rating of greater than 2,000 MMBtu/h) or 2,000 lb CO<sub>2</sub>/MWh-gross for small sources (i.e., those with a heat input rating of 2,000 MMBtu/h or less). The difference in the standards for larger and smaller units is based on greater availability of higher pressure/temperature steam turbines (e.g., supercritical steam turbines) for larger units. The standards can also be met through other non-BSER options, such as natural gas co-firing.

### Stationary combustion turbines.

The final rule establishes standards of performance for newly constructed, modified, and reconstructed stationary combustion turbines. The EPA is finalizing separate standards for nominal-base load units and nominal-peaking units, as well as a sliding scale approach for deriving the unit specific, capacity factor threshold above which a combustion turbine transitions from the subcategory for nominal-peaking units to the subcategory for nominal-base load units.

For newly constructed, modified, and reconstructed nominal-base load natural gas-fired stationary combustion turbines, the EPA is finalizing a standard of 1,000 lb CO<sub>2</sub>/MWh-gross based on efficient NGCC technology as the BSER. Alternatively, owners and operators of nominal base load natural gas-fired combustion turbines may elect to comply with a standard based on net output (1,030 lb CO<sub>2</sub>/MWh-net).

For newly constructed, modified, and reconstructed natural gas-fired nominal-peaking stationary combustion turbines, the EPA is finalizing the BSER as combustion of clean fuels (natural gas with a small allowance for distillate oil) and a corresponding heat input based standard of 120 lb CO<sub>2</sub>/MMBtu. This standard of performance will apply to the vast majority of simple cycle combustion turbines. The EPA is finalizing a heat input based clean fuels standard because we have insufficient information to set a uniform output-based standard that can be achieved by all new nominal peaking units.

In addition, for newly constructed, modified, and reconstructed multi-fuel-fired<sup>4</sup> stationary combustion turbines, the EPA is finalizing an input-based standard of 120 to 160 lb  $CO_2/MMBtu$  based on the combustion of clean fuels as the BSER.<sup>5</sup> The EPA has similarly determined that it has insufficient information at this time to set a uniform output-based standard for stationary combustion turbines that operate with significant quantities of a fuel other than natural gas.

<sup>&</sup>lt;sup>4</sup> The term "multi-fuel-fired" refers to a stationary combustion turbine that is physically connected to a natural gas pipeline but that burns a fuel other than natural gas for 10 percent or more of the unit's heat input capacity during the 12-operating month compliance period. Combustion turbines incapable of combusting natural gas, such as turbines in certain non-continental locations or in remote locations that lack access to a natural gas pipeline, are not subject to any requirements.

<sup>&</sup>lt;sup>5</sup> Combustion turbines co-firing natural gas with other fuels shall determine fuel-based sitespecific standards at the end of each operating month. The site specific standards depends on the amount of co-fired natural gas.

The EPA is withdrawing the proposed standards and is subsequently not promulgating final standards of performance for modified combustion turbines that make modifications resulting in an increase of hourly CO<sub>2</sub> emissions of less than or equal to 10 percent. As we indicated in the proposal, sources from the power sector have notified the EPA of very few NSPS modifications, and we expect that there will be few NSPS modifications for GHG emissions as well. Even so, we also recognize that reliance on combustion turbines is increasing as the power sector realigns and responds to a variety of environmental and utility regulations and market forces that continue to affect the least-cost options for meeting consumer demand for electricity. At this time, we do not have sufficient information to anticipate the types of modifications that operators may undertake as they adapt to these changes. In particular, we do not have sufficient information about the types of efficiency improvement and uprate projects that operators may seek in response to state regulations under section 111(d) and the various renewable portfolio standards being implemented by states. The 10 percent threshold for modifications is necessary to allow more flexibility for utility and air program planners who must consider the interaction of 111(b) and 111(d) regulations and state-specific, utility commission mandates when determining balanced approaches for achieving CAA objectives.

#### **Requirements and Potential Respondents**

In general, all CAA section 111 standards require notifications, reports, and records that are essential in determining compliance, and are required of all sources subject to the standards. The final rule will impose minimal new information collection burden on affected sources beyond what those sources would already be subject to under the authorities of CAA parts 75 (Acid Rain Program CEM requirements) and 98 (Mandatory GHG Reporting, applicable to EGUs that capture CO<sub>2</sub>). OMB has previously approved the information collection requirements contained in the existing part 75 and 98 regulations (40 CFR part 75 and 40 CFR part 98) under the provisions of the <u>Paperwork Reduction Act</u>, 44 U.S.C. 3501 <u>et seq</u>. and has assigned OMB control numbers 2060-0626 and 2060-0629, respectively. Apart from certain reporting costs to comply with the emission standards under the rule, there are no new information collection costs, as the information required by the rule is already collected and reported by other regulatory programs.

Potential respondents are owners and operators of newly constructed, modified, and reconstructed fossil fuel-fired EGUs meeting the applicability requirements specified in the final rule. The rule regulates emissions of  $CO_2$  and requires CEMS to measure  $CO_2$  concentration, stack gas flow rate, and (if needed) stack gas moisture content in accordance with 40 CFR part 75 in order to determine hourly  $CO_2$  mass emissions rates (tons/hour). The rule allows owners or operators of EGUs that burn exclusively gaseous or liquid fuels to install fuel flow meters as an alternative to CEMS. To implement this alternative, hourly measurements of fuel flow rate and periodic determinations of the gross calorific value (GCV) of the fuel are also required. The rule requires that hourly unit operating time and gross output be monitored. The initial performance compliance demonstration consists of calculating the  $CO_2$  mass emissions rate using the first 12 operating months of data (hourly  $CO_2$  average concentration, mass flow rate, and electrical power generation), starting with the first operating month after the calendar month in which emissions reporting is required to begin. Compliance with the applicable average  $CO_2$  mass

emissions rate (lb/MWh) is calculated as a 12-operating-month rolling average basis, updated after each new operating month, using the reported hourly CO<sub>2</sub> average concentration and flow rate values from the certified CEMS data collected for the previous month's process operating days along with generation data tracked by the facility for the unit. The final rule specifies that the owner or operator of a newly constructed, modified, or reconstructed unit is required to comply with the notification, reporting, and recordkeeping requirements, as applicable, in the section 111 regulatory general provisions(40 CFR part 60, subpart A), in 40 CFR part 75, and in 40 CFR part 98. Owners or operators must record hourly average CO<sub>2</sub> emissions concentration, hourly average flow rate, unit operating time, and gross electric generation, and keep records of calculations performed in determining compliance. As part of an Agency-wide effort to facilitate reporting of environmental data and reports, the rule requires that owners and operators subject to this regulation must electronically submit quarterly emissions summary reports that include excess emissions and continuous monitoring systems performance data. Any owner or operator subject to the provisions subpart TTTT is required to keep each record for 3 years.

The EPA believes that electric power companies will choose to build new EGUs that comply with the regulatory requirements of the rule, even in the absence of the rule, because of existing and expected market conditions. The EPA does not project any new coal-fired EGUs that commenced construction after the January 2014 proposal to commence operation over the 3-year period covered by this ICR. We estimate that 12 newly constructed affected NGCC units and 25 newly constructed affected natural gas-fired simple cycle CT units would commence operation during that time period.<sup>6</sup> As a result of the final rule, owners or operators of those units will be required to prepare quarterly emissions summary reports.

Over the history of the NSPS program, the EPA has only received notice that a few EGUs have triggered the modification provisions of CAA section 111. In addition, over the lengthy history of the NSPS program, the EPA is only aware of one EGU that has triggered the reconstruction provisions of CAA section 111. Based on this information, the EPA expects few EGUs will take actions that would constitute modifications or reconstructions as defined under the EPA's NSPS regulations. Although not anticipated, if an EGU were to modify or reconstruct during the 3-year period covered by this ICR, the owner or operator of the EGU would be required to prepare quarterly emissions summary reports.

### 2. Need for and Use of the Collection

### (a) Need/Authority for the Collection

The EPA is charged under section 111 of the CAA to establish standards of performance for new, modified, and reconstructed stationary sources that reflect:

... application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy

<sup>&</sup>lt;sup>6</sup> Estimates are based on (1) "EPA Base Case v.5.15 using IPM" projections for new capacity builds of 2,349 MW of new NGCC capacity and 2,002 MW of new natural gas simple cycle CT capacity over the 2016-2018 period and (2) unit capacities of 200 MW for new NGCC units and 80 MW for new natural gas-fired simple cycle CT units.

requirements) the Administrator determines has been adequately demonstrated. Section 111(a)(l).

In addition, CAA section 114(a) states that the Administrator may require any owner or operator subject to any requirement of this Act to:

(A) Establish and maintain such records; (B) make such reports; (C) install, use, and maintain such monitoring equipment, and use such audit procedures, or methods; (D) sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods, and in such manner as the Administrator shall prescribe); (E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical; (F) submit compliance certifications in accordance with section 114(a)(3); and (G) provide such other information as the Administrator may reasonably require.

As previously stated, the EPA in 2009 found that by causing or contributing to climate change, GHGs endanger both the public health and the public welfare of current and future generations. Fossil fuel-fired power plants are the country's largest stationary source emitters of GHGs. Therefore, NSPS for emissions of CO<sub>2</sub> are being established for this category of sources at 40 CFR part 60, subpart TTTT.

Certain records and reports are necessary for the Administrator to: 1) identify newly constructed, modified, and reconstructed EGUs subject to the standards, 2) ensure that the NSPS is being properly applied; 3) identify those facilities that should be inspected; 4) identify those facilities that may benefit from compliance assistance activities; and 5) ensure that process and emissions control/monitoring equipment are being properly operated and maintained on a continuous basis.

### (b) Use/Users of the Data

The required information will be used by agency enforcement personnel to ensure that the emission limitations are being achieved. Based on review of the recorded information at the site and the reported information, the EPA can identify facilities that may not be in compliance and decide which plants, records, or processes should be inspected.

### 3. Nonduplication, Consultations, and Other Collection Criteria

### (a) Nonduplication

As previously stated, the final rule will impose minimal new information collection burden on affected sources beyond what those sources would already be subject to under the authorities of CAA parts 75 and 98. Apart from certain reporting costs to comply with the emission standards under the rule, there are no new information collection costs, as the information required by the rule is already collected and reported by other regulatory programs. The rule requires that affected owners or operators follow the applicable reporting requirements and submit reports as required by the other regulatory programs. Therefore, no duplication exists. (b) Public Notice Required Prior to ICR Submission to OMBThis section is not applicable because this is a rule-related ICR.

### (c) Consultations

The EPA has engaged extensively with a broad range of stakeholders and the general public regarding climate change, carbon pollution from power plants, and carbon pollution reduction opportunities. These stakeholders included industry and electric utility representatives, state and local officials, tribal officials, labor unions and non-governmental organizations.

Early in the process of developing carbon pollution standards for new power plants, the EPA held five listening sessions in February and March 2011 to obtain information and input from key stakeholders and the public. Each of the five sessions had a particular target audience; these were the electric power industry, environmental and environmental justice organizations, states and Tribes, coalition groups and the petroleum refinery industry.

The EPA has conducted subsequent outreach sessions – the vast majority of which occurred between September 2013 and November 2013. The agency held 11 public listening sessions; one national listening session in Washington, DC and 10 listening sessions in locations across the country. In addition to the 11 public listening sessions, direct engagement has included hundreds of meetings with individual stakeholder groups, and meetings that brought together a variety of stakeholders to discuss a wide range of issues related to the electricity sector and regulation of GHGs under the CAA. The agency provided and encouraged multiple opportunities to engage with each one of the 50 states. The agency met with electric utility associations and electricity grid operators. Agency officials have engaged with labor unions and with leaders representing large and small industries. Because of the focus of the standard on the electricity sector, many of the EPA's meetings with industry have been with utilities and industry representatives directly related to the electricity sector. The agency has also met with energy industries such as coal and natural gas interests. In addition, the agency has met with companies that offer new technology to prevent or reduce carbon pollution, including companies that represent renewable energy and energy efficiency interests. The EPA has also met with representatives of energy intensive industries such as the iron and steel, and aluminum industry to help understand the issues related to large industrial purchasers of electricity. Agency officials engaged with representatives of environmental justice organizations, environmental groups and religious organizations.

In light of the interest among governmental entities, the EPA initiated consultations with governmental entities while formulating the provisions of the proposed standards for new EGUs. Although only new EGUs would be affected by those proposed standards, the outreach regarded planned actions for new, reconstructed, modified and existing sources. On April 12, 2011, the EPA engaged with the following 10 national organizations representing state and local elected officials: (1) National Governors Association; (2) National Conference of State Legislatures, (3) Council of State Governments, (4) National League of Cities, (5) U.S. Conference of Mayors, (6) National Association of Counties, (7) International City/County Management Association, (8) National Association of Towns and Townships, (9) County Executives of America, and (10) Environmental Council of States. On February 26, 2014, the EPA re-engaged with those

governmental entities to provide a pre-proposal update on the emission guidelines for existing EGUs and emission standards for modified and reconstructed EGUs.

In light of the interest among tribal entities, the EPA conducted outreach to tribal environmental staff and offered consultation with tribal officials in developing the standards. Because the EPA is aware of tribal interest in carbon pollution standards for the power sector, prior to proposal of GHG standards for new power plants, the EPA offered consultation with tribal officials early in the process of developing the proposed regulation to permit them to have meaningful and timely input into its development. The EPA's consultation/outreach meeting was held on May 23, 2011. In this meeting, the EPA provided background information on the GHG emission standards to be developed and a summary of issues being explored by the Agency. The EPA also held a series of listening sessions prior to proposal of GHG standards for new power plants. Tribes participated in a session on February 17, 2011, with the state agencies, as well as in a separate session with tribes on April 20, 2011.

During development of the regulation, consultation letters were sent to 584 tribal leaders. The letters provided information regarding the EPA's development of both the NSPS for modified and reconstructed EGUs and emission guidelines for existing EGUs and offered consultation. None have requested consultation. Tribes were invited to participate in the national informational webinar held August 27, 2013. In addition, a consultation/outreach meeting was held on September 9, 2013, with tribal representatives from some of the 584 tribes. The EPA also met with tribal environmental staff with the National Tribal Air Association, by teleconference, on July 25, 2013, and December 19, 2013. In those teleconferences, the EPA provided background information on the GHG emission guidelines to be developed and a summary of issues being explored by the agency.

# (d) Effects of Less Frequent Collection

If the relevant information were collected less frequently, the EPA would not be reasonably assured that a power plant is in compliance with the standards.

# (e) General Guidelines

None of the guidelines in 5 CFR 1320.5 are being exceeded.

# (f) Confidentiality

All information submitted to the agency for which a claim of confidentiality is made will be safeguarded according to the agency policies set forth in Title 40, Chapter 1, part 2, subpart B–Confidentiality of Business Information (see 40 CFR 2; 41 FR 36902, September 01, 1976; amended by 43 FR 39999, September 28, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

# (g) Sensitive Questions

This section is not applicable because this ICR does not involve matters of a sensitive nature.

## 4. The Respondents and the Information Requested

## (a) Respondents/NAICS Codes

Respondents are owners or operators of new, modified, and reconstructed fossil fuel-fired EGUs. All respondents would be subject to the monitoring, recordkeeping, and reporting requirements. The applicable NAICS codes are 221112, Fossil fuel electric power generating units (covers owners/operators of industry or federal, state or local government establishments), and 921150, Fossil fuel electric power generating units in Indian Country.

# (b) Information Requested

# (i) Data Items, Including Recordkeeping Requirements.

Apart from certain reporting costs to comply with the emission standards under the rule, there are no new information collection costs, as the information required by the rule is already collected and reported by other regulatory programs (CAA parts 75 and 98). The EPA does not project any new coal-fired EGUs that commenced construction after the January 2014 proposal to commence operation over the 3-year period covered by this ICR. We estimate that 12 newly constructed affected NGCC units and 25 newly constructed affected natural gas-fired simple cycle CT units will commence operation during that time period. As a result of the final rule, owners or operators of those units will be required to prepare quarterly emissions summary reports. Although not anticipated, if an EGU were to modify or reconstruct during the 3-year period covered by this ICR, the owner or operator of the EGU would be required to prepare quarterly emissions summary reports.

### (ii) Respondent Activities.

The respondent activities required by the NSPS are introduced in section 6(a).

The EPA estimates that 12 newly constructed affected NGCC units and 25 newly constructed affected natural gas-fired simple cycle CT units will commence operation over the 3-year period covered by this ICR and expects few EGUs will take actions that would constitute modifications or reconstructions as defined under the EPA's NSPS regulations during that time period.

# (iii) Electronic Reporting.

Owners and operators with EGUs subject to this regulation must electronically submit quarterly emissions summary reports of emissions and continuous monitoring systems performance. Owners or operators would need to submit these reports to the EPA using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the EPA Office of Atmospheric Programs.

# 5. The Information Collected: Agency Activities, Collection Methodology, and Information Management

### (a) Agency Activities

There would be no EPA burden associated with the reporting requirements of the standards. As a result of this regulation, the owners or operators of the 12 newly constructed

affected NGCC units and 25 newly constructed affected natural gas-fired simple cycle CT units that we estimate will commence operation during the 3-year period of the ICR will be required to electronically submit a quarterly summary report, which includes reporting emissions and downtime. Similarly, if an EGU were to modify or reconstruct, the owner or operator of the affected EGU would be required to electronically submit a quarterly summary report, which includes reporting emissions and downtime. The fees for upkeep of this electronic database are already funded through other rules. Thus, there would be no burden to the agency associated with these reporting requirements.

### (b) Collection Methodology and Management

Following notification of startup, the reviewing authority might inspect the source to determine whether the  $CO_2$  CEMS and the associated automatic data acquisition system are properly installed and operated. Performance test reports are used by the agency to discern a source's initial capability to comply with the emission standard. Data and records maintained by the respondents are used in compliance and enforcement programs. The quarterly reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations.

The information obtained is then entered into the Air Facility Subsystem (AFS) which is operated and maintained by the EPA's Office of Compliance. AFS is the EPA's database for the collection, maintenance, and retrieval of compliance and annual emission inventory data for over 125,000 industrial and government owned facilities. The EPA uses the AFS for tracking air pollution compliance and enforcement by local and state regulatory agencies, EPA regional offices and EPA headquarters. The EPA and its delegated Authorities can edit, store, retrieve, and analyze the data.

Any owner or operator subject to the provisions of this subpart will be required to keep each record for 3 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record must be kept on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. 60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. The records may be kept off site for the remaining year. All electronic reports are sent to the EPA using the ECMPS Client Tool. All non-electronic reports are sent to the delegated state or local authority. In the event that there is no such delegated authority, the reports are sent directly to the U.S. EPA regional office.

### (c) Small Entity Flexibility

The EPA is aware that there is substantial interest in the rule among small entities (municipal and rural electric cooperatives). The EPA has conducted an unprecedented amount of stakeholder outreach. As part of that outreach, agency officials participated in many meetings with individual utilities as well as meetings with electric utility associations. Specifically, the EPA Administrator, Gina McCarthy, participated in separate meetings with both the National Rural Electric Cooperative Association (NRECA) and the American Public Power Association (APPA). The meetings brought together leaders of the rural cooperatives and public power utilities from across the country. The Administrator discussed and exchanged information on the unique challenges, in particular the financial structure, of NRECA and APPA member utilities.

In addition, the EPA conducted outreach to representatives of small entities while formulating the provisions of the proposed standards of performance for new EGUs. Although only new EGUs would be affected by those proposed standards, the outreach regarded planned actions for new, reconstructed, modified and existing sources. The EPA conducted outreach with representatives from 20 various small entities that potentially would be affected by GHG standards. The representatives included small entity municipalities, cooperatives, and private investors. We met with eight of the small entity representatives, as well as three participants from organizations representing power producers, on June 17, 2011, to discuss the outreach materials (background, an overview of affected sources and GHG emissions from the power sector, an overview of CAA section 111, an assessment of CO<sub>2</sub> emissions control technologies, and potential impacts on small entities), potential requirements of the rule, and regulatory areas where the EPA has discretion and could potentially provide flexibility.

A second outreach meeting was conducted on July 13, 2011. We met with nine of the small entity representatives, as well as three participants from organizations representing power producers. During the second outreach meeting, various small entity representatives and participants from organizations representing power producers presented information regarding issues of concern with respect to development of standards for GHG emissions.

### (d) Collection Schedule

The specific frequency for each information collection activity within this request is shown in Exhibits 1a, 1b, and 1c for the first 3 years following promulgation of the standards.

## 6. Estimating the Burden and Cost of the Collection

Exhibit 1a, Exhibit 1b, and Exhibit 1c document the computation of individual burdens for the reporting requirements applicable to the industry for the subpart included in this ICR for each of the first 3 years. Table 2 contains a summary of the respondent burden hours and costs detailed in Exhibit 1a, Exhibit 1b, and Exhibit 1c.

Year	Total Annual Labor Burden (hours)	Total Annual Labor Costs (\$)
1	460	44,652
2	620	58,014
3	872	80,265
Total	1952	182,931
3-Year Average	651	60,977

 Table 2.
 Summary of Respondent Burden and Costs

The individual burdens are expressed under standardized headings believed to be consistent with the concept of burden under the Paperwork Reduction Act. Where appropriate, specific tasks and major assumptions have been identified; responses to this information collection are mandatory.

The 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.

# (a) Estimating Respondent Burden

The average annual burden to industry over the 3-year period of this ICR from these reporting requirements is estimated to be 651 hours per year (detailed in Exhibit 1d). These hours are based on agency studies and background documents from the development of the regulation, agency knowledge, and experience with the NSPS program.

# (b) Estimating Respondent Costs

Respondent costs are typically divided into three categories. These categories include labor costs, operations and maintenance (O&M) costs, and annualized capital costs. Labor costs are the only respondent costs associated with this ICR.

# (i) Estimating Labor Costs

The average annual labor costs to industry over the 3-year period of this ICR from these reporting requirements is estimated to be \$60,978 per year (detailed in Exhibit 1d). Labor rates and associated costs are based on Bureau of Labor Statistics (BLS) data. Technical, managerial, and clerical average hourly rates for private industry workers were based on the BLS, Occupational Employment Statistics, May 2013 National Industry-Specific Occupational Employment and Wage Estimates for NAICS 221100 - Electric Power Generation, Transmission and Distribution (part of NAICS 221000 – Utilities). The approximate labor rates are \$40.03 per hour for technical (architecture and engineering occupations), \$59.44 per hour for managerial (management occupations), and \$22.49 per hour for clerical (office and administrative support occupations). The labor rates from BLS were multiplied by an overhead multiplier of 110 percent to estimate loaded labor rates of \$84.06 per hour for technical, \$124.82 per hour for managerial, and \$47.23 per hour for clerical.

# (ii) Estimating Annualized Capital Costs

There are no annualized capital costs associated with this ICR.

(iii) Estimating O&M Costs

There are no annual O&M costs associated with this ICR.

# (c) Estimating Agency Burden and Cost

Because the information collection requirements were developed as an incidental part of standards development, no costs can be attributed to the development of the information collection requirements. Because reporting and recordkeeping requirements on the part of the respondents are required under the part 60 General Provisions, no operational costs will be incurred by the Federal Government. Publication and distribution of the information are part of the Compliance Data System, with the result that no Federal costs can be directly attributed to the ICR. Examination of records to be maintained by the respondents will occur incidentally as part of the periodic inspection of sources that is part of the EPA's overall compliance and enforcement program, and, therefore, is not attributable to the ICR. The only costs that the Federal government could incur are user costs associated with the analysis of the reported information. The Federal government would not incur those costs as a result of these standards.

### (d) Estimating the Respondent Universe and Total Burden and Costs.

The EPA estimates that 12 newly constructed NGCC units and 25 newly constructed natural gas-fired simple cycle CT units will become subject to the regulation over the 3-year period of the ICR. Although not anticipated, if an EGU were to modify or reconstruct over the 3-year period of the ICR, it would become subject to the regulation.

The total annual number of responses for the new monitoring, recordkeeping, and reporting requirements in subpart TTTT over the 3-year ICR period is estimated to be 280. The average number of annual responses over the 3-year ICR period is 93.3 per year.

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 7 hours per response. Average annual responses per respondent are estimated to be 4.5. The total annual labor burden over the 3-year ICR period is estimated to be 1,952 person hours. The average annual labor burden for the rule is estimated to be 651 person hours per year.

The total annual labor costs over the 3-year ICR period are estimated at \$182,931. The average annual labor costs to industry over the 3-year period of this ICR are estimated to be \$60,977 per year.

### (e) Bottom Line Burden Hours and Cost Tables

There are no annualized capital costs or O&M costs associated with this ICR. The bottom line labor hours and costs burden for each year of the 3-year ICR period appear in Exhibit 1a, Exhibit 1b, and Exhibit 1c.

### (f) Reasons for Change in Burden.

The increase in burden is due to this being a new ICR that estimates burden associated with standards for newly constructed, modified, and reconstructed EGUs.

### (g) Burden Statement

The average annual labor-hour burden for the rule is estimated to be 651 person hours per year and the average annual labor costs are estimated to be \$60,977 per year. Average annual labor-burden per respondent is estimated to be 31.5 person hours per year and average annual labor costs per respondent are estimated to be \$2,946 per year. There are no annualized capital costs or annual O&M costs associated with this ICR. 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 be able 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 in 40 CFR part 60 are listed in 40 CFR part 9.

# PART B

This section is not applicable because statistical methods are not used in data collection associated with the final amendments

# Exhibit 1a. Year 1 Respondent Burden and Cost of Reporting and Recordkeeping Requirements, NSPS for GHG Emissions for Newly Constructed, Modified, and Reconstructed EGUs (40 CFR part 60, subpart TTTT)

Burden Item	(A) Hours per Occurrenc e	(B) Occurrences/ Respondent/Year	(C) Hours/ Respondent / Year (A x B)	(D) Respondents/ Year <sup>a</sup>	(E) Total Hours/ Year (C x D)	(E) Technical Hours/Year (E x .79)	(F) Managerial Hours/Year (E x .09)	(G) Clerical Hours/Year (E x .12)	(H) Cost/ Year
REPORTING REQUIREMENTS									
Read and Understand Rule Requirements <sup>b</sup>	30	1	30	10	300	150	150	0	31,332
Prepare/Submit Emissions Summary Report Includes reporting of excess emissions & downtime	4	4	16	10	160	127	14	19	13,320
TOTAL ANNUAL LABOR BURDEN AND									
COST					460	277	164	19	44,652

<sup>a</sup> Includes 10 respondents (2 combined cycle CT facilities and 8 simple cycle CT units) that become subject to NSPS requirements for newly constructed EGUs beginning in Year 1. Each combined cycle CT facility is assumed to have two 200 MW CT units.

<sup>b</sup> Assumes one-time burden of 30 hours (based on an average reading rate of 100 words/minute) to read and understand rule requirements, divided equally among technical and managerial staff.

# Exhibit 1b. Year 2 Respondent Burden and Cost of Reporting and Recordkeeping Requirements, NSPS for GHG Emissions for Newly Constructed, Modified, and Reconstructed EGUs (40 CFR part 60, subpart TTTT)

Burden Item	(A) Hours per Occurrenc e	(B) Occurrences/ Respondent/Year	(C) Hours/ Respondent / Year (A x B)	(D) Respondents/ Year	(E) Total Hours/ Year (C x D)	(E) Technical Hours/Year (E x .79)	(F) Managerial Hours/Year (E x .09)	(G) Clerical Hours/Year (E x .12)	(H) Cost/ Year
REPORTING REQUIREMENTS									
Read and Understand Rule Requirements <sup>a</sup>	30	1	30	10 <sup>b</sup>	300	150	150	0	31,332
Prepare/Submit Emissions Summary Report Includes reporting of excess emissions & downtime	4	4	16	20 <sup>c</sup>	320	253	29	38	26,682
TOTAL ANNUAL LABOR BURDEN AND									
COST					620	403	179	38	58,014

<sup>a</sup> Assumes one-time burden of 30 hours (based on an average reading rate of 100 words/minute) to read and understand rule requirements, divided equally among technical and managerial staff.

<sup>b</sup> Includes 10 respondents (2 combined cycle CT facilities and 8 simple cycle CT units) that become subject to NSPS requirements for newly constructed EGUs beginning in Year 2. Each combined cycle CT facility is assumed to have two 200 MW CT units.

<sup>c</sup> Includes 10 respondents (2 combined cycle CT facilities and 8 simple cycle CT units) that become subject to NSPS requirements for newly constructed EGUs beginning in Year 2 and 10 respondents (2 combined cycle CT facilities and 8 simple cycle CT units) that are already subject to NSPS requirements for newly constructed EGUs (i.e., became subject in Year 1). Each combined cycle CT facility is assumed to have two 200 MW CT units.

# Exhibit 1c. Year 3 Respondent Burden and Cost of Reporting and Recordkeeping Requirements, NSPS for GHG Emissions for Newly Constructed, Modified, and Reconstructed EGUs (40 CFR part 60, subpart TTTT)

Burden Item	(A) Hours per Occurrenc e	(B) Occurrences/ Respondent/Year	(C) Hours/ Respondent / Year (A x B)	(D) Respondents/ Year	(E) Total Hours/ Year (C x D)	(E) Technical Hours/Year (E x .79)	(F) Managerial Hours/Year (E x .09)	(G) Clerical Hours/Year (E x .12)	(H) Cost/ Year
REPORTING REQUIREMENTS									
Read and Understand Rule Requirements <sup>a</sup>	30	1	30	12 <sup>b</sup>	360	180	180	0	37,598
Prepare/Submit Emissions Summary Report Includes reporting of excess emissions & downtime	4	4	16	32 <sup>c</sup>	512	405	46	61	42,667
TOTAL ANNUAL LABOR BURDEN AND									
COST					872	585	226	61	80,265

<sup>a</sup> Assumes one-time burden of 30 hours (based on an average reading rate of 100 words/minute) to read and understand rule requirements, divided equally among technical and managerial staff.

<sup>b</sup> Includes 11 respondents (2 combined cycle CT facilities and 9 simple cycle CT units) that become subject to NSPS requirements for newly constructed EGUs beginning in Year 3 and 1 respondent that becomes subject to NSPS requirements for modified/reconstructed EGUs beginning in Year 3. Each combined cycle CT facility is assumed to have two 200 MW CT units.

<sup>c</sup> Includes 11 respondents (2 combined cycle CT facilities and 9 simple cycle CT units) that become subject to NSPS requirements for newly constructed EGUs beginning in Year 3; 1 respondent that becomes subject to NSPS requirements for modified/reconstructed EGUs beginning in Year 3; and 20 respondents (4 combined cycle CT facilities and 16 simple cycle CT units) that are already subject to NSPS requirements for newly constructed EGUs (i.e., became subject in Year 1 or Year 2). Each combined cycle CT facility is assumed to have two 200 MW CT units.

# Exhibit 1d. Summary of Respondent Burden and Cost of Reporting and Recordkeeping Requirements, NSPS for GHG Emissions for Newly Constructed, Modified, and Reconstructed EGUs (40 CFR part 60, subpart TTTT)

#### Summary of Respondent Burden and Cost

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Totals Annual Labor Burden (Hours)		Annual Labor Costs	Annualized Capital Costs	Annual O&M Costs	Annualized Costs			
3-Year Total	1,952	\$182,931	\$0	\$0	\$0			
Average Annual	651	\$60,977	\$0	\$0	\$0			
Average Annual per Respondent <sup>a</sup>	31.5	\$2,946	\$0	\$0	\$0			

<sup>a</sup> Equal to average annual estimate divided by the average annual number of respondents.

#### Summary of Responses

	Occurrence			
Information Collection Activity	per Respondent	Respondents	Total Responses	Average Annual
REPORT REQUIREMENTS				
Read and Understand Rule Requirements	1	32	32	
Prepare/Submit Emissions Summary Report	4	62	248	
3-Year Total Responses			280	
	Average An	nual Number of	Responses =	93.3
	20.7			
Α	4.5			
	7			