Supporting Statement for Information Collection Request Certification and In-use Testing of Motor Vehicles: Revisions to Reduce Light-Duty Vehicle Emissions of Greenhouse Gases: Model Years 2017 – 2025

EPA ICR 0783.61

Compliance Division Office of Transportation and Air Quality Office of Air and Radiation U.S. Environmental Protection Agency

Part A

SUBMISSION Section 1: Identification Of The Information Collection

1(a) Title And Number Of The Information Collection

Certification and In-use Testing of Motor Vehicles: Revisions to Reduce Emissions of Light-Duty Vehicle Greenhouse Gases, Model Year 2017 - 2025; EPA ICR number 0783.61, OMB control number 2060-0104.

1(b) Short Characterization/Abstract

Introduction and Short Characterization

The Environmental Protection Agency and the National Highway Traffic and Safety Administration are jointly proposing Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards changes designed to decrease emissions of greenhouse gases (GHG) for model year (MY) 2017 to 2025 light duty vehicles (LDVs). This is an extension of the national GHG program rulemaking recently completed for MY 2012 to 2016 (75 FR 25324, May 7, 2010). This ICR deals with EPA's portion of the proposed rule, which concerns EPA's motor vehicle certification and in-use testing programs, covered by the ICR 0783 series. As with the ICR on the prior rule, EPA is not aware of, and has not analyzed, any NHTSAspecific paperwork burdens in this ICR. The ICR addresses changes to paperwork burdens on these programs dealt with in the ICR on the MY 2012 – 20167 final rule (ICR 0783.58), which included the cost of upgrading information systems to comply with new reporting requirements, and new testing requirements. Other economic impacts, such as the industry's costs of complying with the new standards, are discussed in the cost analysis portions of the preamble and Regulatory Impact Analysis associated with the regulations. That economic analysis includes "cost markups for manufacturer indirect costs" based on multipliers. The individual components of those indirect costs, such as paperwork costs, were not specifically addressed.

At OMB's request, EPA previously disaggregated the 0783 certification ICR into separate Information Collections (ICs) for Emissions (also called Certification) and Fuel Economy (as well as ICs for DR/VERR defect reporting, IUVP in-use testing, and highway motorcycles). As with ICR 0783.58, the burdens in this ICR have been allocated to the emissions and IUVP ICs, even though the rule includes changes to EPA's fuel economy regulations and the emissions reporting is done in a CAFE-compatible format.

Some of the proposed changes occur as early as MY 2012, and constitute modifications of the prior rule. Other proposed changes will start taking effect with 2017 model year light-duty vehicles and will phase in through model year 2025. The core of the proposal is to set standards for emissions of greenhouse gasses for MY 2017 - 2025, continuing the information reporting structure established in the prior

rulemaking. Most of the costs associated with the rulemaking therefore involve an assessment of the available technology and the costs of using it and as such and are outside the scope of this ICR. In addition, the proposed standards incorporate assumptions about the extent to which credits based on air conditioning improvements will be used for compliance. These and other credit and incentive provisions in the proposal have to be applied for with the submission of information to EPA. All credits and incentives that are alternatives to the normal emissions based methods of compliance with the standards will presumptively be used because they are less expensive that the normal methods of meeting the standards, even when taking the information costs into account. Paperwork burdens of these optional credits and incentives should be considered in the context of an overall lowering of the manufacturer's costs of compliance with the rule.

ICRs normally have a three year time horizon. Those portions of this rule that go into effect with MY 2017 largely will fall outside the normal time horizon of an ICR, other than preparatory work, familiarization, and provisions that go into effect within three years of the final rule. This ICR will adjust the burdens authorized in the prior ICR covering MY 2012 -2016, where appropriate, and will discuss paperwork burdens that may change the authorized level after that without attempting to quantify cost impacts that the proposal's cost study itself deems speculative. (In addition, possible reductions in the burden after 2017 for some line items should not be counted until they go into effect because doing so could potentially cause noncompliance with the authorization prior to that, to the extent that the authorization is considered as based on the entire ICR cost analysis and not on merely on its aggregate results.) Furthermore, the rule is proposed in contemplation of a "mid-term evaluation" to be completed by 2018, which may provide information for adjustments to the model years beyond that.

In many cases this ICR cost analysis includes both high and low cost estimates; unless otherwise indicated, the burden estimates given below are the high-cost estimates. Beginning in calendar year 2012, the proposed rule changes will result in new costs (high estimate) of about \$1,205,890 annually in capital and operations and maintenance costs with a reduction labor hours of 1,524 annually on the regulated manufacturers compared to the baseline after the prior GHG rule.

Summary of the Proposal's New Paperwork-Affecting Features

This summary gives necessary background for the estimations given in Part 6.

Starting with model year 2017, manufacturers will be required to meet increasingly stringent greenhouse gas emissions limits through 2025, beyond those specified in the prior rule for 2012 to 2016. These limits will be enforced through the certification program. As with the existing program, averaging, banking, and trading (ABT) will be available; light-duty vehicles (cars), light-duty-trucks, and medium-duty passenger vehicles seeking certificates of authority to sell vehicles in the United States will be required to submit CO₂ test results and other information in support of certification applications; and all certified vehicles will be subject to the requirements of the In-Use Vehicle Testing Program (IUVP). This ICR considers the costs associated with submitting this information to EPA, including the costs of generating the information to be submitted, such as testing costs, and facility and equipment costs to conduct the testing. The ICR calculates the changes in the baseline information burden, based on changes in the existing GHG program, the major outlines of which were established in the prior rule and costed in the prior ICR.

The prior ICR included new testing costs associated with air conditioning credits because the level of credit attainment was included in the compliance standards. It also included new IUVP testing costs due to the requirement that the highway fuel efficiency test be added for the test fleet. Both of these had a capital cost component for the facilities needed to conduct the tests, and there were startup capital costs for N2O analyzers and for information system updating. Estimates were also made for the more direct burden increases for reporting and recordkeeping, including estimated paperwork burdens for the other credits. This ICR incorporates an updated estimate of the costs of N2O analyzers, and additional and updated costs for information and familiarization with the regulations.

This proposal includes an updated estimate of the number of manufacturers affected by the GHG standards, the number of small businesses exempt from the standards, and brings in some small volume manufacturers exempted in the prior rule. The prior ICR assumed 53 manufacturers, of which 20 were small businesses which are exempt from GHG standards, for a total of 33 respondents. The current ICR also assumes 33 respondents. (EPA is proposing that police and emergency vehicles would also be exempted beginning MY2012, but the test-group level impact of this, if any, is likewise too limited to quantify at this time.) These changes result in adjustments to the prior ICR's testing, facility, capital, and general reporting burden estimates.

Eliminating the previous rule's Small Volume Manufacturer exemption for those manufacturers who do not qualify for the small business entity exemption entails a new paperwork cost that goes into effect by July 30, 2013 for paperwork purposes, when the petition for alternative standards must be submitted for SVMs pursuing this option. Eligible manufacturers are SVMs having vehicle sales of less than 5,000 per year (three-year rolling average) in the U.S. There are currently three manufacturers that qualify under this definition. The high cost estimate for purposes of the reporting requirements assessment assumes five and the low, three. (EPA is taking comments on the extent to which this number might change depending on the criteria for "operational independence" in counting whether a manufacturer is an SVM or is part of a larger company; the minor impact on the number of SVM manufacturers will be addressed in the final ICR, if necessary, depending on how these provisions are addressed in the final rule.) The prior MY 2012-2016 rule requires SVMs to make a good faith effort to secure credits from other manufacturers, if they are reasonably available, to cover the emissions reductions they would have otherwise had to achieve under applicable standards. Under the proposal, SVMs can petition EPA by July 30, 2013 for alternative standards that would go into effect beginning MY 2017. This petition requires submission of detailed supporting information that imposes a new information collection burden. The analysis assumes all three or five will submit this information. The

first petition and ruling could be followed by an indeterminate number of additional petitions and standards in subsequent years covering model years through 2025. This burden is reduced by the fact that the submission is similar to those required in support of similar alternatives already required beginning prior to 2017 by NHTSA for CAFE, and the European Union. It is also reduced by the fact that the application and the standards that result can cover up to five model years.

Much of the proposed rule that affects reporting deals with modifications to the credit and incentive provisions of the prior rule. Manufacturers choose between 1) tailpipe attainment of CO2 emissions standards without credits or incentives, and 2) application and qualification for use of one or more of the available optional credits and incentives. The proposal makes a distinction between incentives, the AC credit, and other credits, where the AC credit is incorporated into the fleet emission standards because the extent to which it is achievable industry wide was considered calculable, whereas in the other cases it was not. In the case of AC, the calculation is in terms of vehicle numbers under an econometric model rather than manufacturers and test groups relevant to the paperwork burden. The provisions that are modified or new are summarized below:

1) <u>Overcompliance and undercompliance credits</u>, debits, trading and transfers are unchanged, except that a carry forward of more than five years (to 2021) is added for credits that were earned during the initial MY 2010 – 2016 period.

2) Air conditioning improvement tests: the previous CO2 credits for emissions, refrigerant leakage, and global warming improvements remain. EPA is incorporating air conditioning improvements in its CO2 standards, leaving manufacturers the option of achieving those standards by applying for the credit or by other means. Therefore, there is no assumption about how many manufacturers will apply for the credit; the full amount of the achievable reduction is incorporated in the standard, and manufacturers can achieve that reduction however they wish. The analysis in the previous ICR that assumed most or all manufacturers will apply for the credit is maintained in this ICR. Minor changes in the leakage credit showing are accounted for in the "familiarization" burden estimate. The possible need for some manufacturers to upgrade their refrigerant storage facilities and charging stations on the assembly line in order to comply with the CO2 emissions standards to the extent that they incorporate assumptions about use of alternative refrigerants, is regarded as a cost of compliance rather than reporting. EPA is also proposing changes to the Idle Test that render it more appropriate for vehicles with different displacements and more practical in terms of ambient temperature and humidity requirements; in doing so it is not making changes that affect the testing costs estimated in the prior ICR, which continues to be a function of the time needed for the testing. Comments are solicited in the proposal on a proposed optional alternative ("AC17") test procedure as well as on other ideas, including possible use of bench tests plus modeling, that are not as yet proposed to be part of the rule. The AC17 option is more expensive from a testing and paperwork standpoint but only applies to "platforms", a smaller class than "test groups" so that, depending on the number of platforms using the alternative the option, it could either increase or decrease the testing burden associated with the A/C credit. This is reflected

in an increased range of the high and low estimates for this paperwork cost item in this draft ICR, while the underlying cost assumptions of the Idle Test are retained.

3) Off-cycle credits are continued, but with a simplified approval process for some of the relevant technologies (defined technologies qualify for the credits given adequate penetration of the manufacturer's fleet subject to a combined manufacturer fleet credit cap and with minimum penetration requirements for certain technologies) starting with MY 2017 and altered eligibility criteria in other cases beginning in MY 2012. The default off-cycle credit requires running three 5-cycle tests with and without the technology along with an engineering analysis to support the credit application; an alternative demonstration methodology can be requested based on submission of supporting information. The proposal adds a list of defined technologies that are preapproved for credits starting with 2017, with manufacturer fleet-wide caps on the amount of the credit, and minimum penetration levels for certain technologies to qualify. For the 2012 – 2016 period, there are changes in the criteria and possible additional or alternative tests and possible (and in some cases mandatory) use of an EPA-developed simulation tool. Applying for the credit is presumably less burdensome from a compliance standpoint than not qualifying for the credit, for those who choose to qualify. Off-cycle components generating credits are subject to all in-use requirements, including durability testing, defect reporting, warranty, and recall. Assumption about the class of manufacturers and number of tests that would fall under each variant are unwarranted at this time. A step-by-step review process for 2012 on is spelled out to qualify and apply for these credits.

4) Various new <u>incentive multipliers</u> are added for electric vehicles (EVs), plug-in hybrid electric vehicles (PHEVs), and fuel cell vehicles (FCVs) for MY 2017 through 2021 that would allow each of these vehicles to "count" as more than one vehicle in the manufacturer's compliance calculation (The 0 gram per mile compliance value incentive from the prior rule is continued, but without the production cap for MY2017 – 2021. For MY 2022 through 2025, EPA is proposing that the 0 grams per mile compliance incentive will apply up to a per-company cumulative production cap threshold for those model years.) Since the credit in all these cases is based on production figures that are reported anyway as part of the end-of-year report, the small paperwork burden addressed in the prior ICR is small. However, new data would need to be submitted for production over a manufacturer's cap, if any, in order to calculate the GHG compliance level taking into account upstream emissions. This ICR considers the production caps for the period up to 2016 unlikely to be exceeded.

5) <u>Incentive for Game Changing Technologies</u>: a new CO2 credit in the GHG program for manufacturers that employ significant quantities of hybridization on full size pickup trucks, by including a per-vehicle CO2 credit available for mild and strong hybrid electric vehicles (HEVs). The credit requires a showing of market penetration. EPA is also proposing a performance-based incentive CO₂ emissions credit for full size pickup trucks that achieve a significant CO₂ reduction through technologies other than hybrid systems. Both begin with MY 2017. The main paperwork burden associated with these provisions is showing that the vehicles in question qualify, which is a simple matter of definition, and showing that the market penetration requirements (a minimum percentage of a manufacturer's full-size pickup

trucks) have been met, which is a matter of sales records, which are already reported, or that performance fits the criteria based on testing that is required anyway.

6) N2O and CH4 Flexibility: A new provision allows CO2 credits to be used to satisfy the NO2 and CH4 emissions caps contained in the prior rule for those manufacturers choosing to comply using the CO₂-equivalent standard option, which allows manufacturers to fold all 2-cycle weighted N₂O and CH₄ emissions, on a CO₂-equivalent basis, along with CO₂ into their CO₂ emissions fleet average compliance level. This has no effect on the testing cost.

Additional details on the coverage of this ICR are given in Section 4(b), below.

Section 2: Need For And Use of the Collection

2(a) <u>Need/Authority For The Collection</u>

Under Title II of the Clean Air Act (42 U.S.C. 7521 et seq.), EPA is charged with issuing certificates of conformity for motor vehicle designs that comply with applicable emission standards set under section 202(a)(1) of the Act, such as those for CO2, N2O, and CH₄ in the final regulation. (This authority was clarified in the Supreme Court's decision <u>State of Massachusetts v. EPA</u>, 127 S. Ct. 1438 (2007)). Section 202(a)(1) states that ''the Administrator shall by regulation prescribe (and from time to time revise) [...] standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles [...], which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.'' The Administrator has found that the elevated concentrations of a group of six GHGs in the atmosphere may reasonably be anticipated to endanger public health and welfare, and that emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to this air pollution

A manufacturer must have a certificate before vehicles may be legally introduced into commerce. To insure compliance with the Act, EPA reviews product information and manufacturer test results; EPA also tests some vehicles to confirm manufacturer results. Information is also shared with other agencies: the Internal Revenue Service for "gas guzzler" taxes and NHTSA for CAFE and GHG requirements. Other elements of the legal and regulatory background relating to the need and authority for the final rule are discussed in the preamble to the rule.

Under Section 206(a) of the Clean Air Act (42 U.S.C. 7525) "... The Administrator shall test ... any new motor vehicle ... submitted by a manufacturer ... If such vehicle ... conforms ... the Administrator shall issue a certificate of conformity." While EPA has delegated a substantial portion of the process of calculating and reporting emissions and fuel economy results to the manufacturers, the test results upon which labels are based are subject to EPA confirmatory testing. Such confirmation testing makes sure that results from different manufacturers can be accurately used for comparison. The regulations dealing with LDV and LDT emission control can be found in 40 CFR Parts 85 and 86. The regulations dealing with reporting fuel economy information are in 40 CFR Part 600. The regulations are not attached to this statement due to their length and technical nature.

Because of its specialized nature and the fact that product plans and emission performance information must be submitted to EPA prior to the start of production, this information is not available from any source other than the manufacturer.

2(b) Practical Utility/Users of the Data

The information collection under the rule will be used to determine whether the new GHG requirements have been complied with by means of the certification and inuse testing programs.

Section 3: Nonduplication, Consultations, and Other Collection Criteria

3(a) Nonduplication

The compliance process for both manufacturers and EPA builds on existing practice wherever possible, and manufacturers can use a single data set to satisfy both GHG and Corporate Average Fuel Economy (CAFE) testing and reporting requirements. The EPA and NHTSA programs replicate the compliance protocols established under the prior rule. The certification, testing, reporting, and associated compliance activities track current practices and are thus familiar to manufacturers. As is the case under the 2012-2016 program, EPA and NHTSA have designed a coordinated compliance approach for 2017-2025 such that the compliance mechanisms for both GHG and CAFE standards are consistent and non-duplicative. The information collection, reporting, and storage provisions of the rule rely on EPA's existing certification and in-use programs and on EPA's fuel economy reporting system that is used by NHTSA in developing and administering CAFE standards. As discussed at length in the preamble to the proposal, this is a joint rulemaking by NHTSA and EPA, a format which has a maximum degree of coordination between the two similar programs addressing GHGs and fuel economy. NHTSA is regulating fuel economy, whereas EPA is regulating GHG emissions. The statutory mandates for the two agencies are different, and this results in a certain degree of difference in two programs that nonetheless share a great deal in approach and structure.

3(b) Public Notice Prior to ICR Submission to OMB

EPA solicited public comment by means of the Federal Register Notice of the proposed rule; a copy can be found at http://www.epa.gov/otaq/climate/regulations.htm. The ICR was placed in the docket.

3(c) Consultations

The proposed regulations, including the cost analysis that is reflected in this ICR, were developed based on experience with similar regulations developed in the past in close consultation with the affected industry. As for the MY 2012-2016 rulemaking, collaboration with California Air Resources Board (CARB) and with industry and other stakeholders has been a key element in developing the agencies' proposed rules. The final ICR will reflect comments on this draft (which will be placed in the record) and pertinent comments that are received on the proposed rule.

3(d) Effects of Less Frequent Collection

As required by the Clean Air Act (42 USC 7525(a)), emission and fuel economy information is submitted on a yearly basis coinciding with the manufacturer's "model year." EPA allows applicants to define their own "model year", thus granting some flexibility in this regard. Major product changes typically occur at the start of a model year. For these reasons, a collection frequency longer than a model year is not possible. However, when a vehicle design is "carried over" to a subsequent model year, the amount of new information required is substantially reduced. Some information is also to be submitted during the model year, including model-level GHG testing results, analogous to model-level fuel economy results, which are necessary because certification data are collected on a test group basis which does not allow for fleet total GHG emissions and fuel economy calculations on a model level basis. Likewise, existing regulations require an end-of-year report, with final production numbers, and the new requirements would be conformed to this existing requirement as well. In-use testing is currently required at low- and high-mileage intervals after a model year vehicle has entered commerce, and the final rule's provisions bearing on in-use testing conform to the current program.

3(e) General Guidelines

Manufacturers are required to keep some records for periods longer than three years. This requirement stems from the statutory requirement that manufacturers warrant some items for periods longer than 3 years.

This information collection activity complies with the remaining guidelines in 5 CFR 1320.5. The rule makes no changes in the reporting and recordkeeping provisions that impact any of the guidelines for information collections as approved in the existing approved collection.

3(f) <u>Confidentiality</u>

Information submitted by manufacturers is held as confidential until the specific vehicle to which it pertains is available for purchase. After vehicles are available, most information associated with the manufacturer's application is available to the public. Under section 208 of the Clean Air Act (42 USC 7542(c)) all information, other than

trade secret processes or methods, must be publicly available. Proprietary information is granted confidentiality in accordance with the Freedom of Information Act, EPA regulations at 40 CFR Part 2, and class determinations issued by EPA's Office of General Counsel.

3(g) <u>Sensitive Questions</u>

No sensitive questions are asked in this information collection. This collection complies with the Privacy Act and OMB Circular A-108.

Section 4: Respondents and Information Requested

4(a) <u>Respondents/NASIC Codes</u>

The respondents are potentially involved in the industries shown in the following table:

Category	NAICS Codes ^A	Examples of Potentially Regulated Entities
Industry	336111 336112	Motor vehicle manufacturers.
Industry	335312 336312 336322 336399 454312 485310	Alternative fuel vehicle converters ^B
Industry	811111 811112 811198 541514	Commercial Importers of Vehicles and Vehicle Components ^B

^ANorth American Industry Classification System (NAICS)

^B We are currently unaware of any independent commercial importers (ICIs) or alternative fuel converters that are not small businesses; as the rule would defer small businesses these ICIs and converters would not be regulated at this time.

4(b) Information Requested

(i) Data items

The information and reporting burden associated with this rule occurs within the context of EPA's motor vehicle certification program and the manufacturers' in-use testing program (IUVP). Current regulations require manufacturers to submit emissions information to EPA in conjunction with these two programs (Information Collections). Manufacturers must submit an application for emission certification prior to production. The application describes the major aspects of the proposed product line, technical

details of the emission control systems, and the results of tests to indicate compliance with the emissions and GHG limitations. The application and supporting test results are reviewed and, if appropriate, a certificate of conformity is issued. Subsequently, lowand high-mileage vehicles in use are tested for emissions by manufacturers and the results of those tests reported to EPA.

The data items in the GHG program were summarized in the prior ICR. The basic outline of the model year submission scheme is restated here for convenience; for additional details on the prior rule, see the Supporting Statement for ICR 0783.58):

Before the beginning of each model year:

• GHG compliance plan including projected use of credits provisions.

At the time of certification:

- CO₂ and CH₄ emissions test results for each test group being certified.
- Engineering evaluation indicating that common calibration approaches will be utilized at high altitude.
- N2O measurement results or compliance showing for each test group.

During the model year, after certification:

- CO₂ emissions test results for model types. (The models for which results are reported is considered to be coextensive with those already reported for CAFE fuel economy purposes.)
- AC/CO₂ idle test for models representing percentages of the applicant's production volume, starting in 2014.

After the model year:

- End of model year GHG emissions report for CO₂, including the final fleet average standard, all values required to calculate the fleet average standard, the actual fleet average CO₂ that was achieved, all values required to calculate the actual fleet average, the number of credits generated or debits incurred, all the values required to calculate the credits or debits, and the resulting balance of credits or debits.
- Report of credit transactions.

During in-use testing:

• Results of the highway fuel economy test (HFET) along with the currently-reported FTP results for each tested vehicle.

The current proposed rule makes the following addition to the data items that is reflected in this ICR:

<u>Small Volume Manufacturers</u> (less than 5,000 units per year sold in the U.S.) must submit a request for alternative CO2 standards or else comply with the regular standards. The ICR assumes that SVMs will request alternative standards. The data items are as follows:

EPA proposes that SVMs would provide the following information as part of their petition for SVM standards:

Vehicle Model and Fleet Information

- MYs that the application covers up to 5 MYs. Sufficient information must be provided to establish alternative standards for each year
- Vehicle models and sales projections by model for each MY
- Description of models (vehicle type, mass, power, footprint, expected pricing)
- Description of powertrain
- Production cycle for each model including new vehicle model introductions
- Vehicle footprint based targets and projected fleet average standard under primary program by model year

Technology Evaluation

- CO₂ reduction technologies employed or expected to be on the vehicle model(s) for the applicable model years, including effectiveness and cost information
 - Including A/C and potential off-cycle technologies
- Evaluation of similar vehicles certified in MYs 2012-2013 (or latest 2 MYs for later applications) for each vehicle model including CO₂ results and any A/C credits generated by the models
 - Must be selected based on vehicle type, horsepower, mass, power-to-weight, vehicle footprint, vehicle price range and other relevant factors as explained by the SVM
- Discussion of CO₂ reducing technologies employed on vehicles offered by the manufacturer outside of the U.S. market but not in the U.S., including why those vehicles/technologies are not being introduced in the U.S. market as a way of reducing overall fleet CO₂ levels

• Evaluation of technologies projected by EPA as technologies likely to be used to meet the 2012-2016 and 2017-2025 standards that are not projected to be fully employed by manufacturer and explanation of reasons for not using the technologies

SVM Projected Standards

- The most stringent CO₂ level estimated by the SVM to be feasible and appropriate by model and MY and the technological basis for the estimate
- For each MY, projection of the lowest fleet average CO₂ production mix of vehicle models and discussion demonstrating that these projections are reasonable
 - EPA expects fleet standards would track product plan/projected changes in product mix for the individual manufacturers
- A copy of any applications submitted to NHTSA for MY 2012 and later alternative standards

Eligibility

- U.S. sales for previous three model years and projections for production volumes over the time period covered by the application
- Complete information on ownership structure in cases where SVM has ties to other manufacturers with U.S. vehicle sales

New SVMs intending to enter the market in 2017 – 2025 have additional reporting requirements:

• evidence that the company intends to enter the U.S. market within the time frame of the MY2017-2025 SVM standards. Such evidence would include documentation of work underway to establish a dealer network, appropriate financing and marketing plans, and evidence the company is working to meet other federal vehicle requirements such as other EPA emissions standards and NHTSA vehicle safety standards.

(ii) Respondent Activities

While there is no "typical" respondent, all manufacturers must describe their product and supply test data and other information to verify compliance, including the test data and reports added by this rule. After certification, additional fuel economy tests are conducted and the results reported to EPA for base engines within the test group. After the end of the model year a calculated fleet average greenhouse gas emissions will be calculated and reported and credits, debits, and trades described. As now, high mileage and low mileage in-use vehicles are procured by manufacturers and tested for emissions, including the testing added by the prior rule. EPA also conducts a limited number of "confirmatory tests" to monitor manufacturer results, and this will continue as before with inclusion of testing for GHGs. This requires test vehicles to be shipped to EPA's laboratory. Manufacturers must also retain records. These tasks are repeated for each model year, although typically previous data and information can be "carried over" when no significant changes have occurred. If, during the course of a model year a product change is made (a "running change"), EPA must be notified. Under some circumstances additional test data may be required. Manufacturer activities also include the post-certification, end of model year, and IUVP actions discussed in Section 4(b)(i).

Section 5: The Information Collected—Agency Activities, Collection Methodology, and Information Management

5(a) Agency Activities

The test data used by EPA to determine compliance with GHGs and other emissions and fuel economy standards are derived from vehicle testing done by vehicle manufacturers who report their own test data to EPA, and at EPA's National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan. Each year, EPA provides fuel economy data to the Department of Energy (DOE), NHTSA, and the Internal Revenue Service (IRS) so that they can administer their fuel economy-related programs. DOE publishes the annual fuel economy label values in the annual Fuel Economy Guide and on the fuel economy web site at http://www.fueleconomy.gov. NHTSA receives the manufacturers' fleet average fuel economy from EPA, and determines if manufacturers are complying with the CAFE standards. EPA provides IRS with the fuel economy data for vehicles that may be subject to the Gas Guzzler tax penalty. The IRS is responsible for collecting those taxes from manufacturers.

5(b) Collection Methodology and Management

EPA currently makes extensive use of computers in collecting information from vehicle manufacturers. Essentially all routine information (test results and vehicle descriptions in applications for certification and subsequent model tests, IUVP data, end-of-year reports, credits and ABT reports, deterioration determinations, etc.) is electronically transmitted directly from the manufacturers through the Verify system. Remaining information, including diagrams and narrative descriptions of vehicles, is submitted on optical disc. The rule makes no changes in this reporting system, only changing the format and content of some of the information reported within it.

All information received by EPA is subject to review. Data submitted electronically are automatically screened; test results that are close to emission and fuel economy standards are reviewed in more detail. Narrative descriptions of the proposed product line are checked to verify that the appropriate vehicles have been tested. (The emission and fuel economy programs rely on a combination of "worst case" and representative data to accomplish their goals.) Except for projected sales and a limited amount of proprietary product information, all information is available to the public as soon as the vehicle is offered for sale. Emission and fuel economy data are available on the internet; other information is available upon request under the Freedom of

Information Act.

5(c) Small Entity Flexibility

The proposal continues to exempt small businesses from the GHG standards, for any company that meets the SBA's definition of a small business, as in the prior rule. These are referred to as "small entities". The proposal adds the flexibility to opt in to the standards applicable to regular manufacturers, but this is a voluntary option that is not costed in this ICR.

5(d) Standards for Small Volume Manufacturers

Under the prior rule, small volume manufacturers (SVMs) with U.S. annual sales of less than 5,000 vehicles were also eligible for an exemption from the CO₂ standards. The proposal brings these manufacturers into the CO2 program, but maintains flexibility with an opportunity to petition for alternative standards. For purposes of this ICR, the set of manufacturers meeting this condition (not a small business entity, but less than 5,000 vehicles sold in the US) is from a low estimate of three, to a high estimate five. For these, the costs of paperwork and record keeping calculated for the prior rule apply unless they petition for alternative standards; for purposes of this estimate we treat all SVMs as applying for the alternative standards. Manufacturers with less than 5000 total annual sales are exempt from IUVP, so the increased IUVP testing otherwise imposed by the prior rule do not apply to them.

The prior rule's temporary leadtime allowance alternative standards (TLAAS) provisions which provided an allowance for a separate averaging fleet with a less stringent GHG standard as a phase-in provision for model years 2012 to 2015 for manufacturers with fewer than 400,000 vehicles, and for model years 2012 to 2016 for manufacturers with annual sales of less than 50,000 vehicles, is not being continued. As in the prior ICR, these are treated as compliance burden costs rather than paperwork burden costs.

EPA has other previously existing special procedures that might apply to smallvolume light-duty vehicle and light-duty truck manufacturers not otherwise excluded by the final rule's small-business exclusion. "Small-volume manufactures" for purposes of these provisions are defined as those whose total sales are less than 15,000 units per year (40 CFR 1836-01). These special procedures allow the small-volume manufacturer to submit a simplified application for certification with respect to durability demonstrations, and these manufacturers also have reduced requirements under the IUVP program. In addition, engine families with small numbers of vehicles are eligible for reduced certification fees. Finally, by the very nature of their size, small volume manufacturers typically have very limited product lines. This characteristic both reduces the amount of information which must be submitted and also simplifies the process of selecting the correct test vehicle(s).

5(d) Collection Schedule

See the description in Part 4(b)(i). Information must be submitted for each "model year" that a manufacturer intends to build (or import) vehicles. For emissions purposes, a "model year" is statutorily defined as the annual production period of a manufacturer, as decided by the Administrator, that includes January 1 of that calendar year; or that calendar year if the manufacturer does not have an annual production period. During the model year, the results of such additional fuel economy and GHG tests as the manufacturer conducts are also reported to EPA. After the end of the model year fleet-wide GHG emissions are calculated and reported. If a product is unchanged between model years, much of the information can be "carried over." The collection frequency and burden are determined to a large extent by the manufacturer's marketing and production plans. However, as required by law, some submission is required for each model year's production.

Section 6: Estimating the Burden and Cost of the Collection

The following estimates of changes in burden use baselines and methodologies developed in the process of continuing updates of the 0783 ICR series, including the last renewal (ICR 0783.54, OMB 2060-0104, approved August 31, 2009), the prior disaggregation of that ICR into five ICs, the cold hydrocarbon emissions standards rule (ICR 0783.52), the latest vehicle fuel-economy labeling rule (ICR 0783.60), and the prior GHG rule (ICR 0783.58). The reasoning behind estimates of increased burden from the current baseline are given below and summarized in Section 6(f) based on provisions of the proposal that are summarized in Section 1(b). Most of the burden is included in the underlying certification authorization baseline; the numbers below are only changes to the baseline. "Respondent Burden" is taken to refer to hours, while "Respondent Costs" are taken to refer to non-labor capital and O&M costs. Hours or costs are reported to the hour or dollar without intending to imply that the totals are significant to the last digit.

For both Respondent Burden and Respondent Costs, new and corrected estimates will be updated in subsequent ICRs, which should benefit from the most recent information available about real testing and reporting costs associated with credit pathways chosen, gathered through Verify queries based upon actual rather than projected certification applications.

6(a) Estimating Respondent Burden

The respondent burden hours changes for the Light-Duty Vehicle Emissions Information Collection reflect new labor hours associated with conducting tests and with reporting. As discussed above, the AC17 air conditioning test alternative could result in either an increase or a decrease in testing labor hours (and testing costs). Once additional information is received, as compliance cost decreases are translated into reporting cost increases or decreases using this alternative, further adjustments to the baseline will likely be warranted. Testing costs also contain a small addition to account for the estimated three to five SVMs that will be required to conduct Idle Tests for some fraction of its vehicle families, assuming the SVMs would seek to generate A/C credits. These two corrections decrease the low estimate by 128 and increase the high baseline, (which is used for the authorization request) by 618 hours.

The reporting (paperwork) and recordkeeping costs have been revised to reflect the estimated number of manufacturers reporting GHG results to EPA contained in the proposal. A line item has been added to account for small volume manufacturers, which are assumed to submit applications for alternative standards the yearly burden of which in paperwork burdens is taken to subsume the above categories (initial total fleet reporting, and credits that are separately counted for other manufacturers). The yearly cost of doing so is scaled to account for the provision that the alternative standards can last up to five years, but may be less than that. We used three years as an approximation. The increment over their current burden is estimated at 333 hours per year. Since every manufacturer will be required to submit an end-of-year report on compliance with fleet average GHG requirements, the number used for this item is 33.

All labor hours associated with startup costs for installing (updating) information technology systems to incorporate the new information to be reported, and startup costs for familiarization with the new regulations, are associated with capital/startup costs, so they are included under that heading.

6(b) Estimating Respondent Costs

(i) Estimating labor costs

Information technology specialists for analysis and coding and label redesign are priced at \$100 per hour. Labor costs for testing follow the testing labor cost assumptions of ICR 0783.47 and 0783.51 and average out to \$55 per hour. Because this estimate underlies the entire certification program and not just this GHG portion, it will be adjusted for inflation in the next renewal of the ICR 0783 series. For labor costs associated with reporting and recordkeeping, rates for engineering managers (SOC 11-9199), mechanical engineers (SOC 17-2141), and secretaries (except legal, medical, and executive; SOC 43-6014) are from the May 2010 BLS National Industry-Specific Occupational Employment and Wage Estimates for NAICS 336100 - Motor Vehicle Manufacturing

(http://www.bls.gov/oes/current/naics4_336100.htm, accessed October 13, 2011). With a 160% overhead multiplier, these are \$87.33, \$70.37, and \$31.68, respectively.

(ii) Estimating Operations and Maintenance Costs

Operation and Maintenance costs include the non-labor costs associated with conducting the new tests that are anticipated for model year 2011 and after. For the Emissions IC, the Idle Test is estimated to involve \$210 to \$420 per test (low and high estimates); in the prior ICR these were applied to the an estimate of the number of such tests the major manufacturers who choose to apply for the credit will need to do to represent their production volume in model year 2014 and after, for an industry total of \$41,297 to \$171,570 per year. After the initial year, there would presumably be a number of carry-overs, so this is a conservative estimate (i.e., tending to be on the high side) for the years after model year 2012. As discussed above, comments are solicited in the proposal on a proposed optional alternative ("AC17") test procedure as well as on other ideas, including possible use of bench tests plus modeling. This option is more expensive from a testing and paperwork standpoint but only applies to "platforms", a smaller class than "test groups" so that, depending on the number of platforms using the alternative, the option could either increase or decrease the testing burden associated with the A/C credit. This is reflected in an increased range of the high and low estimates for this paperwork cost item. This is applied to an estimate of 195 to 409 test groups (accounting for the addition of small volume manufacturers). These two adjustments increase the high estimate by \$34,566 annually from the current baseline.

No changes are expected for the IUVP O&M costs.

(iii) Start-up Capital Costs

"Startup" costs are one-time costs to implement the new requirements in the rule that are applicable to model year 2012 vehicles being certified or in-use tested by the respondent manufacturers. These startup burdens fall into three categories.

For the Emissions IC, first are information technology costs involving familiarization with the new data reporting requirements and installation of reformatted management information systems to carry out and report the necessary data and calculations. All these burdens are add-ons to well established reporting requirements: manufacturers already submit similar data to EPA. However, because manufacturers must not only program the reporting requirements, but also make management decisions about which of the compliance pathways offered in the proposal to follow, this ICR adds a line item familiarization cost not separately counted in the prior ICR. These adjustments add \$160,990 (depreciated) to the baseline for this category of startup costs.

Second are startup costs associated with N₂O measurement. The prior ICR estimated a cost of \$50,000 to \$60,000 per analyzer, with one to five needed by 33 manufacturers. An updated cost estimate of \$60,000 to \$120,000 for each of the laser-based measurement systems likely to be chosen by most manufacturers, applied to 33 manufacturers, accounts for most of the increase in the high-estimate baseline for this item (\$990,000, depreciated).

For the IUVP IC, some of the contracting laboratories that do IUVP testing may

also need to install N₂O analyzers, and the adjustment in analyzer cost for the three to five facilities doing IUVP testing adds an estimated discounted and annualized capital cost of \$85,426 (undepreciated) to the IUVP IC baseline. Testing facilities and procedures vary widely, and this is reflected in the order of magnitude range of high and low items for N2O analyzer startup costs.

Third are capital costs associated with the new testing facility. Because manufacturers vary widely in their existing testing facilities, their excess capacities, their work shift arrangements and availabilities, the real estate cost and land availabilities for hypothetical expansions, and their contractual arrangements with other testing facilities, the Compliance Division has for many year now used the approximation that a facility capable of performing 750 FTP/HFET tests per year costs \$4,000,000 and allocated this cost to each testing increment. This cost is then allocated over ten years and discounted at 7%. This methodology is considered conservative, because it assumes no excess capacity. This estimate includes no change in the IUVP IC because there are no changes in the idle test cost. For the Emissions IC, the placeholder for the AC17 test increases the range of facility costs slightly to correspond to the increase in testing costs discussed above. This results in a small increase of \$6,983 (depreciated) per year in the high estimate. However, the high end cost could be substantially higher if many manufacturers choose to use the AC17 test, with additional 5-cycle testing required. Comments on the proposal will be considered in revising for the final ICR. No change in facility costs as included in the IUVP program because small volume manufacturers are exempt from IUVP.

6(c) <u>Estimating Agency Burden</u>

The emissions certification, fuel economy, and IUVP programs are administered by EPA's Compliance Division. Approximately 47.5 full time employee equivalents are directly involved in the combined emission and fuel economy programs for lightduty vehicle, motorcycle, and other, secondary programs; their cost is approximately \$5.9 million, including benefits but not overhead. EPA also participates in a program whereby the agency contracts with organizations that provide qualified persons to perform duties for the agency that are not performed by EPA employees. The cost associated with these persons who work directly on these programs is approximately \$0.23 million, excluding overhead. Overhead percentage for the entire division is approximately 16.9%, yielding an estimated total agency labor cost of \$7.17 million. The total non-capital costs for the light-duty and motorcycle programs, including direct and indirect labor, operations and maintenance, and overhead, is estimated as \$11.14 million for FY 2007.

Implementation of the new GHG proposal will be carried out by existing staff. The prior rule included startup costs for information systems and programming, including overhead of \$4,000,000 (high estimate). Annualized over ten years with 7% depreciation this cost burden came to \$569,510. Ongoing agency burden added by the rule for maintaining and managing the database after startup was estimated at 12% of the startup costs, or \$480,000, corresponding to approximately 6,281 hours. Combined labor and annual startup costs therefore totaled 6,281 hours (startup hours not annualized) and \$1,049,510. Implementing the new GHG proposal will undoubtedly require additional information systems startup costs and ongoing O&M. As the Agency has not yet determined this level of effort, this ICR will use one-third of the expenses of the prior rule as a placeholder: \$1,333,333 startup capital costs with a yearly discounted value of \$189,837, and \$160,000 a year including overhead in ongoing maintenance and management of the database, equivalent to 2094 hours. This estimate includes costs associated with developing formats and collecting information within the Verify system for the new reporting elements summarized in 4(b)(i). Other ongoing database management, oversight, and certification activities are part of the fuel economy and emissions program Agency baseline. All EPA labor estimates are based on Office of Personnel Management Salary Table 2011-GS

(http://www.opm.gov/oca/11tables/pdf/gs_h.pdf, accessed 10/17/2011) with a 1.6 multiplier for overhead based on EPA's latest fees cost allocation study (1.37 indirect program cost overhead times 1.16 overall EPA overhead). This estimate does not include Agency burdens incurred prior to the effective date of the rule, such as costs of developing the rule and preliminary consultations with manufacturers on database issues.

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

As mentioned above, the respondent universe is a total of 33, including 3 to 5 small volume manufacturers that may petition for alternative standards. The proposal also exempts police and emergency vehicles from the GHG rule. It is possible that this could change the number of test groups by one or two out of the 823 model level and 427 certification vehicle submissions assumed in the baseline. This is below the threshold of accuracy for the current estimate. The main benefit of the exemption is in reducing the sales figures for purposes of compliance with the standards.

From the above discussion the following total burden and cost estimates can be calculated. (Due to the diverse nature of the motor vehicle industry, there is no typical or average respondent, and this estimate makes many assumptions in an attempt to accommodate this diversity.)

6(e) Bottom Line Burden Hours and Cost

(i) <u>Respondent Tally</u>

RESPONDENTS	33
BURDEN HOURS	5,133
OPERATING COST	121,864
CAPITALIZED COST	\$1,235,714

A more detailed summary can be seen in the tables below:

COST BURDEN

	-	Min	Max
Emissions IC			

Startup: Capital one-time IT/Paperwork/Familiarization/N₂O (annualized 10yrs/7%)	\$62,721	\$1,143,395
New Facilities: Ongoing Capital (annualized 10yrs/7%)	-\$3,318	\$6,893
Capital Subtotal	\$59,403	\$1,150,288
New Testing (O&M)	\$-8537	\$34,566
New Reporting & Recordkeeping	-\$25,823	-\$87,298
Total	\$76,689	\$1,272,152

IUVP IC		
Startup: one-time (10yrs/7%)	\$4,271	\$85,426
New Facilities: Ongoing Capital,		
annualized 10 yrs/7%)	\$0	\$0
Capital Subtotal	\$4,271	\$85,426
New Testing (O&M)	\$0	\$0
New Reporting & Recordkeeping	\$0	\$0
Total	\$4,271	\$85,426
TOTAL CAPITAL	\$63,674	\$1,235,714
TOTAL O&M	\$17,286	\$121,864

HOURS BURDEN

TOTAL LDV & IUVP

LDV/LDT Emissions IC		
Startup: Capital one-time	0	0
IT/Paperwork (annualized 10yrs/7%)	0	0
New Facilities: Ongoing Capital (annualized 10yrs/7%)	0	0
New Testing	-142	576
New Reporting & Recordkeeping	2,722	4,557
Total	2,580	5,133

IUVP IC		
Startup: one-time IT/Paperwork and		
O&M (annualized 10yrs/7%)	0	0

80,960

\$1,357,578

New Facilities: Ongoing Capital, annualized 10 yrs/7%)	0	0
New Testing (Labor & O&M)	0	0
New Reporting & Recordkeeping	0	0
Total	0	0

TOTAL LDV & IUVP

5,133

2,580

(ii) Agency Tally

EMPLOYEES	26
STARTUP	\$349,837
LABOR HOURS	2,094

6(f) Reasons for change in burden

The burden change is from new capital and operations and maintenance costs and labor hours associated with implementing the new programs detailed in this final ICR. The increase in burden from the draft ICR is due largely to an increase in the estimated (high estimate) cost of information system upgrades for industry. There is also a slight increase in the reporting burden associated with the end of model year GHG emissions report and the optional credit calculations that they may include.

6(g) Burden Statement

The table in Section 6(e) presents the total estimated burden for the proposed rule: approximately 5,133 additional hours per year, with total annual capitalized and O&M costs estimated at \$1,357,578. These estimates represent the high end of a high-low range that was used for many of the cost elements. The annual costs and hours for information collection activities by a given manufacturer under any of the options in this rule depend upon manufacturer-specific variables, such as the number of different test groups, the number of vehicles tested, the number of new N₂O analyzers needed, the credit options chosen if any, and the cost of information system upgrades. The estimated number of likely respondent manufacturers is 33. The responses will be submitted annually and occasionally as a part of the existing EPA certification and IUVP programs.

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 are listed in 40 CFR part 9 and 48 CFR chapter 15.

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 rule, which includes this ICR, under Docket ID number EPA-HQ-OAR-2010-0799. 1Docket ID No. EPA-HQ-OAR-2010-0799, is available online viewing at <u>www.regulations.gov</u> or in person viewing at the Air And Radiation Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. 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 Docket is (202)566-1742. An electronic version of the public docket is available at 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-2010-0799 and OMB Control Number 2060-0104 in any correspondence.