Supporting Statement

for

Information Collection Request

Emissions Certification and Compliance Requirements for

Nonroad Spark-Ignition Engines (Renewal)

EPA ICR Number 1695.14, OMB Control Number 2060-0338

42 USC 7521 § 206 (b)(1)

42 USC 7521 § 207(b)

42 USC 7521 § 213(d)

42 USC 7521 § 217

40 CFR Part 1054 (Small NRSI)

40 CFR Part and 1045 (Marine SI)

40 CFR Part 1048 (Large NRSI)

40 CFR Part 1051 (Recreational)

40 CFR Part 1060 (Evaporative Components)

40 CFR Part 1065 (All NRSI – Testing)

40 CFR Part 1068 (All NRSI – General Compliance Provisions)

Gasoline Engine Compliance Center

Compliance Division

Office of Transportation and Air Quality

Office of Air and Radiation

U.S. Environmental Protection Agency

1. Identification of the Information Collection

1(a) Title and Number of the Information Collection

Emissions Certification and Compliance Requirements for Nonroad Spark-ignition Engines (Renewal); EPA ICR Number 1695.14, OMB Control Number 2060-0338.

1(b) Short Characterization

This supporting statement is a renewal of ICR Number 1695.13 and covers the burden associated with emission certification and compliance requirements affecting manufacturers of nonroad spark-ignition (SI) engines (small SI engines, large SI and marine SI engines), recreational vehicles, and SI evaporative components. For simplicity, these industries are collectively referred to as “nonroad SI engines” or “SI engines.” This ICR will incorporate Emissions Defect Information Report (EDIR) and Voluntary Emissions Recall Report (VERR) obligations within this ICR. The EDIR and VERR have been segregated from 2060-0048 for nonroad spark-ignition engines and vehicles only and incorporated into our computations for reporting and recordkeeping purposes in this ICR.

Under Title II of the Clean Air Act (42 U.S.C. 7521 et seq.; CAA), EPA is charged with issuing certificates of conformity for engine prototypes that comply with applicable emission standards. Such a certificate must be issued before engines produced after these prototypes may be legally introduced into commerce. Table 1 below lists EPA regulations pertaining to the industries covered by this ICR.

Table 1

Nonroad SI Emissions Regulations

|  |  |
| --- | --- |
| Industry | 40 CFR Part |
|  |  |
| Small Spark-Ignition Engines (small SI) | 1054 (formerly 90) |
| Large Spark-Ignition Engines (Large SI) | 1048 |
| Marine Spark-Ignition Engines (Marine SI) | 1045 (formerly 91) |
| Recreational Vehicles | 1051 |
| Evaporative Requirements | 1060 |
| General Provisions – apply to most nonroad categories | 1068 |

Certain programs contain Averaging, Banking, and Trading (ABT) provisions which allow manufacturers the flexibility of averaging the exhaust emissions from a set of engines or equipment in which emission credits may be exchanged with other engines (equipment) in the same averaging set, bank total credits earned by that averaging set under the emissions standard, or trade emissions credits with other manufacturers within the industry. The ABT program provides another path toward certification and compliance but allow manufacturers some flexibility in choosing which mix of emissions technology and total sales of engines and equipment to satisfy EPA emissions standards.

Manufacturers electing to participate in ABT are also required to submit information regarding the calculation, actual generation, and use of credits in an initial report, end-of-the-year report, and final report. These reports are used for certification and enforcement purposes. Manufacturers must also maintain records for eight years on the engine families included in the program.

The CAA also mandates EPA to verify that manufacturers have successfully translated their certified prototypes into mass produced engines, and that these engines comply with emission standards throughout their useful lives. Under the Production-line Testing (PLT) Program, manufacturers are required to test a sample of engines as they leave the assembly line. This self-audit program (referred to as the "PLT Program") allows manufacturers to monitor compliance with statistical certainty and minimize the cost of correcting errors through early detection. Through Selective Enforcement Audits (SEAs), EPA verifies that test data submitted by engine manufacturers is reliable and testing is performed according to EPA regulations. Compliance with emission regulations throughout the useful life of an engine is verified through the In-use Testing (In-use) Programs under which manufacturers test SI engines after a number of years of use. Participation in the PLT program is mandatory for recreational vehicle manufacturers who are participating in ABT, Small SI, Marine SI, and Large SI manufacturers. The In-use Programs are voluntary for small SI engines, but mandatory for large SI engines. All manufacturers are subject to SEAs.

This information is collected by the Gasoline Engine Compliance Center (GECC), Compliance Division (CD), Office of Transportation and Air Quality (OTAQ), Office of Air and Radiation (OAR), U.S. Environmental Protection Agency (EPA). Besides CD, this information may be used by the Office of Enforcement and Compliance Assurance (OECA) and the Department of Justice for enforcement purposes. Non-confidential portions of the information submitted to EPA may be disclosed in a public database and over the Internet (https://www.epa.gov/importing-vehicles-and-engines/how-obtain-copy-certificate-conformity-heavy-duty-or-nonroad-engine). This information is used by trade associations, environmental groups, and the public. Respondents submit most of this information to EPA’s vehicle and engine compliance information system (EV-CIS). Additional information about EV-CIS and how manufacturers use the system can be found at <https://www.epa.gov/vehicle-and-engine-certification/how-register-engines-and-vehicles-compliance-information-system-ev>

Our previous computation and renewal request failed to provide estimates of Defect, Recall, Evaporative Components, and compliance testing, as differentiated from certification testing. We did not previously provide defect and recall reporting obligations in our calculations. We were new to evaporative components in our initial estimation and, as a result, overcounted the number of manufacturers and under counted their obligations, including not accounting for O&M costs and component testing obligations. As a result, we recalculated every item for this renewal because we could not rely on how we initially accounted for these estimates from previous ICRs.

In addition, the California Air Resources Board has adopted a new fuel standard for spark-ignition engines, that has taken affect. Manufacturers must conduct new testing to satisfy the new fuel requirement and durability demonstration, which has increased the number of manufacturers that must conduct new testing at the time of certification. These increases in testing, more detailed compliance testing and reporting requirements, consolidation of additional regulatory programs applicable to NRSI engines and vehicles, has increased the burden now assessed to comply across all of these industries for these regulatory requirements. As a result, there is an increase in hours for the industries involved, 738,603.0 for the total estimated burden in this collection. This increase in hours and costs to this ICR is primarily due to an adjustment in the hours required to file a complete application for certification and conduct compliance activities throughout a calendar year, additional testing as a result of a change in California test fuel, combined with the consolidation of evaporative components and Defect and Recall reporting.

A review of all the programs included in the previous ICR reflected that the number of respondents previously estimated was higher than current estimates, particularly for evaporative components, and the hours needed to reflect the adjustment to the use of carry-over applications and contracting out the test work for certification and/or compliance testing by some manufacturers. There is now more extensive use of our EV-CIS system where manufacturers can submit their responses, including applications for certification and compliance reports, was used to retrieve information included in this ICR.

The structure of our programs within the Compliance Division was reorganized, placing responsibility for spark-ignited engines into the Gasoline Engine Compliance Center (GECC). We stated in 77 FR 52324, “former ICR 1722.06 (Emission Certification and Compliance Requirements for Spark-Ignition Marine Engine, OMB Number 2060-0321), and former ICR 2251.03 (Control of Emissions from Nonroad Spark-Ignition Engines and Equipment, OMB Number 2060-0603), were incorporated into ICR 1695.10 [OMB Control No. 2060–0338]… to consolidate certification and compliance information requirements for spark-ignition engines into one ICR for simplification.” When we incorporated these provisions, we did not previously account for emissions defect reporting and recall reporting, which were captured in the previous ICR’s for spark-ignited engines and equipment as well as spark-ignited marine engines. We now incorporate those sections as well as our previously described improved accounting of evaporative components for nonroad SI products.

2. Need for and Use of the Collection

2(a) Need/Authority for the Collection

EPA's emission certification programs are statutorily mandated; the agency does not have discretion to cease these functions. Under Section 206(a) of the CAA (42 USC 7521):

"The Administrator shall test or require to be tested in such manner as he deems appropriate, any new motor vehicle or new motor vehicle engine submitted by a manufacturer to determine whether such vehicle or engine conforms with the regulations prescribed under §202 of this Act. If such vehicle or engine conforms to such regulations, the Administrator shall issue a certificate of conformity upon such terms, and for such period (not more than one year) as he may prescribe."

This provision also applies to nonroad engines, pursuant to §213(d) of the CAA. Also, under the authority of the CAA §217, engine manufacturers are required to pay a fee when applying for a certificate of conformity.

Therefore, vehicle and engine manufacturers may not legally introduce their product into U.S. commerce unless EPA has certified that their vehicles and engines comply with applicable emission standards. To ensure compliance with these statutes, EPA reviews product information and manufacturers' test results and may test some vehicles and engines to confirm manufacturers' certification testing results. EPA also conducts an ABT Program, which is one of the many regulatory features designed to enhance the compliance flexibility for and reduce the burden on the affected engine manufacturers, without compromising the expected emissions benefit derived from these emissions standards. Note that there is no ABT program for large SI engines.

Section 206(b)(1) of the CAA authorizes EPA to inspect and require testing of new vehicles and engines to: (1) verify that manufacturer's final product complies with EPA standards; (2) assure that the correct parts are installed correctly in each engine; and (3) audit the manufacturer's testing process to ensure testing is being done correctly. The PLT Program and the SEA Program fulfill these requirements through the inspection and testing of engines taken directly from the assembly line and by auditing the engine manufacturer's testing procedures and facilities. Section 207(b), through Section 213(d), of the CAA mandates the establishment of methods and testing procedures to ascertain whether certified engines in actual use in fact comply with applicable emission standards throughout their useful lives.[[1]](#footnote-1)

2(b) Practical Utility/Users of the Data

EPA uses the information requested to support various enforcement actions as mandated by the CAA. This information collection enables EPA to ensure that SI engine manufacturers are complying with applicable emission regulations, measure the impact of their nonroad engine emissions on air quality, and take corrective actions as needed.

The information will be received and used by GECC. Non-confidential portions of the information submitted to GECC are available to and used by importers, environmental groups, members of the public, and local, state and federal government organizations.

3. Nonduplication, Consultations and Other Collection Criteria

3(a) Nonduplication

The information requested under this ICR is required by statute. Because of its specialized nature, the information collected is not available from any other source. Furthermore, some of the information, such as projected U.S. sales volume, is claimed as confidential business information (CBI) by manufacturers; therefore, EPA can only obtain it if manufacturers submit it.

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

On June 2, 2021, the EPA published in the Federal Register this proposed Information Collection Request for public Notice and Comment (86 FR 29578, June 2, 2021). This ICR renewal received no comments from the public. No response was needed from the EPA.

3(c) Consultations

EPA consulted fewer than ten past respondents regarding this information collection burden, including the following industry professionals:

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Company: PSI Engines

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Phone: 586-453-9652

Contact: Dave Oughton

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Contact: Jean-Michel Desaulniers

Company: Bombardier

Email: [jean-michel.desaulniers@brp.com](mailto:jean-michel.desaulniers@brp.com)

Phone: 450-532-6188

The consultants provided some useful information on estimating approximate time to complete certification and compliance testing as well as providing estimates on contract expenditures for testing and service accumulation.

3(d) Effects of Less Frequent Collection

The CAA states that emission certification must be done on a yearly basis (CAA 206(a)(1)), coinciding with the industry's 'model year.' Major product changes typically occur at the start of a model year. For these reasons, a collection frequency of less often than a model year is not possible. However, when an engine design is "carried over" to a subsequent model year, the amount of new information required is substantially reduced.

PLT reports are submitted on a quarterly basis. Manufacturers are required to test up to one percent of their production at random to ensure that mass produced engines comply with emission requirements. If a problem is found, manufacturers must correct it and might need to recall engines that have already been sold. Engine manufacturing companies update their internal production volume reports every quarter. By conducting this quality control testing also on a quarterly basis, manufacturers can learn about and address any problems early, before the start of the next quarter's production, thus minimizing costs.

In-use testing reports are submitted annually, within three months of the completion of the required testing. Providing this information to EPA at a less frequent interval would compromise EPA's ability to expeditiously evaluate the emissions results and determine, in a timely manner, whether in-use engines conform to the applicable emission standards. Any delay in making such a determination reduces the universe of engines which will be reached by a potential recall because both engine scrappage and owners' unwillingness to participate in recalls increase with the age of the engine.

SEA information is only collected on occasion, when EPA has reason to believe that an audit of a particular manufacturer is in order.

3(e) General Guidelines

Emission test records must be maintained for eight years, except for routine emission test data such as those reporting the condition of the test cells. Test cell data need to be kept for one year only. However, records may be kept in any format and media, provided the manufacturer is able to provide organized, written records to EPA upon request. This requirement stems from the CAA mandate that manufacturers recall engines failing to meet emission standards throughout their useful lives.

When audited, manufacturers must submit test results and information within 30 working days after all testing ordered under notification of a SEA has been completed. The items requested are all readily available or generated during the SEA. The information is requested in this time frame so that EPA can verify the accuracy and validity of the emission data and expeditiously reach a conclusive audit decision. An expeditious audit decision allows the manufacturer to quickly release the tested vehicles or engines for introduction into commerce.

Under this information collection, manufacturers are required to submit confidential business information such as sales projections. Furthermore, certain sensitive technical and proprietary information submitted during the certification process could be used during SEAs. This information is kept confidential in accordance with the Freedom of Information Act (FOIA), EPA regulations at 40 CFR Part 2, and class determinations issued by EPA's Office of General Counsel.

No other general guideline is exceeded by this information collection.

3(f) Confidentiality

Manufacturers may assert a claim of confidentiality over information provided to EPA by marking such information in their submittals to the Agency. Confidentiality of all subject material is provided in accordance with the FOIA regulations at 40 CFR Part 2.

3(g) Sensitive Questions

No sensitive questions are asked in this information collection.

4. Respondents and Information Requested

4(a) Respondents/North American Industry Classification System (NAICS) Codes

Respondents are manufacturers of nonroad engines within the following North American Industry Classification System (NAICS) code:

333618 Other Engine Equipment Manufacturing

336312 Gasoline Engine and Engine Parts Manufacturing

336999 Other Transportation Equipment Manufacturing

336991 Motorcycle, Bicycle and Parts Manufacturing

333112 Lawn & Garden Tractor and Home Lawn & Garden Equipment Manufacturing

335312 Motor and Generator Manufacturing

4(b) Information Requested

Manufacturers must describe their products and supply test data to verify compliance. This information is organized by "engine family" groups expected to have similar emission characteristics. Manufacturers must also retain these records.

EPA has developed web-based and other electronic tools for manufacturers to submit their certification applications and compliance data. Section 5(b), Collection Methodology, contains more details.

(i) Data Items

While regulations may call for additional/different items depending on the characteristics of the regulated engine or vehicle, below is a general list of the data items requested. Please refer to the regulations cited previously in this ICR for a comprehensive list of items per engine/vehicle category. Some of these data items are required to be kept in records and submitted only upon request.

A. Certification

Engine families must be certified each model year. Evaporative component families may be certified annually. A model year refers to the manufacturers' annual new model production period, or a calendar year if the manufacturer does not have a model year. Manufacturers may make changes to one or more engine models within a family at any time during the model year. These changes may significantly affect the engine models, and therefore, the engine family's emission levels. For this reason, all SI engine programs run on a model year basis.

The certification burden for a given engine family is reduced after the model's first production year, because data and information from previous years can be "carried over" when no significant changes have occurred. For instance, an engine family certified in model year 2019 can be certified in model year 2020 by "carry-over" of data and paperwork from model year 2019 if no significant changes have occurred to the engine family between model years. Allowing manufacturers to "carry-over" data and other information saves manufacturers the burden of duplication which would occur in the absence of such provisions.

A label identifying each engine and stating the engine family name, the fuels for which the engine is certified to run, the engine useful life and category, if applicable, must be affixed to each engine. Manufacturers are also required to provide warranties to consumers.

Equipment manufacturers who use Class II Small SI engines typically add on their own evaporative components on their equipment. Since engine manufacturers do not typically supply these components, equipment manufacturers must annually certify that they are using certified components for fuel tanks and fuel lines and that they have applied the running loss control. There is an optional ABT program for these equipment manufacturers.

An application fee must be paid per engine family per model year. This fee is required under the authority of Section 217 of the CAA and the Independent Offices Appropriation Act (31 U.S.C. 9701) to ensure that the motor vehicle emissions compliance program is self-sustaining to the extent possible. New fee schedules are published on EPA’s website. See section 6(b)(ii) for details.

Manufacturers of small SI engines must also post a bond upon importation of engines manufactured abroad. This requirement is waived if the engine manufacturer owns enough assets in the US to cover its liability. SI bonding requirements are found at 40 CFR 1054.690. For more information on obtaining a Bond or for waivers please visit this website; https://www.epa.gov/vehicle-and-engine-certification/certification-materials-small-nonroad-spark-ignition-nrsi.

From time to time, EPA may conduct confirmatory testing. When there is reason to believe that a compliance issue may exist with the emissions data submitted at certification, EPA may, at its own expense, purchase or rent engines and test them. Manufacturers may be notified about this testing in advance or may be required to explain discrepancies found between EPA test data and that submitted by the manufacturer.

Information Items Required Under the Certification Program:

* Statement of compliance;
* Identification and description of the basic engine design including, but not limited to, the engine family specifications (fuel, cooling medium, etc.);
* Explanation of how the emission control system operates;
* Fuel system type and components;
* Useful life period;
* Deterioration factors;
* Intended service class;
* Projected sales;
* Estimated production period;
* Sales area;
* Plant contact and location;
* Program information;
* Family Emission Limit (FEL);
* Nonroad engine equipment types;
* Detailed description and justification of each auxiliary emission control device (AECD), and how they affect emissions;
* Description of all adjustable parameters, their adjustable ranges and methods employed to prevent tampering, etc.;
* Detailed drawings and descriptions of the various emission related components;
* Description of the test equipment and fuel to be used;
* Description of the test procedures to be used to establish the durability data or the exhaust emission deterioration factors;
* All test data obtained by the manufacturer on each test engine;
* Statement of the useful life;
* Statement of the alternative useful-life period and a brief synopsis of the justification, if applicable;
* Maintenance information;
* Description of the provisions taken to prevent tampering with emission control computer instructions;
* Proposed test fleet selection and the rationale for the test fleet selection;
* Special or alternate test procedures, if applicable;
* Period of operation necessary to accumulate service hours on test engines and stabilize emission levels;
* Fee filing form; and
* If EPA submits a written request for an explanation of good engineering judgment, manufacturers must provide a written description of the judgment in question within 15 working days, unless otherwise specified.

Manufacturers must keep records for eight years except routine emission records. Manufacturers must keep routine emission records for only one year.

General Records:

● Identification and description of all engines for which testing is required;

● Description of emission control systems; and

● Description of test procedures.

Individual Records:

● Copies of all the applications submitted;

● A brief history of all test engines and running changes;

● A complete record of all emission tests performed;

● The date of each mileage accumulation run and the mileage accumulated;

● Record and description of all maintenance and other servicing performed;

● Record and description of each test performed to diagnose engine or emission control system performance;

● A brief description of any significant events affecting the vehicle;

● Actual U.S. sales volume; and

● Routine emission test data.

When a manufacturer needs to make changes to a certified engine, or to add an engine model to an already certified engine family, the following information must be submitted. Running changes are submitted using the same electronic format used to apply for a certificate of conformity. Data items requested:

● Notification of changes made to the application and/or request to amend the application;

● Description of change to be made;

● Engineering evaluations or data showing that engines as modified or added will comply with all applicable emission standards;

● Determination of whether the original test fleet selection is still appropriate, and proposed new test fleet selections, if applicable;

● Test data on engines changed or added, upon request; and

● Supporting documentation, test data and engineering evaluations as appropriate to demonstrate that all affected engines will still meet applicable emission standards.

If an engine is installed that has been rebuilt, emissions-related components must be checked. The following records must be kept for at least two years after rebuilding an engine and must be accessible for EPA's review. Records may be based on engine families rather than individual engines if that is a normal business practice.

● Hours of operation (or mileage, as appropriate) at the time of the rebuild;

● Work completed on the engine or any emission-related control components, including a listing of parts and components used;

● Any engine parameter adjustments; and

● Any emission-related codes or signals responded to and any retests.

For manufacturers or rebuilders of aftermarket engine parts for large SI engines and recreational vehicles, information must be maintained that shows how their parts or service affect emissions. EPA may test engines and equipment to investigate potential defeat devices or may require the manufacturer to complete this testing. Manufacturers may need to provide information regarding test programs, engineering evaluations, design specifications, calibrations, on-board computer algorithms, and design strategies. (see Section 1068.110)

Each manufacturer is also required to submit an annual production report identifying the number of engines produced by engine family, by gross power, by displacement, by fuel system, or by other categories as the Administrator may require. If the manufacturer requests a hearing on the Administrator's denial or revocation of a certificate of conformity, the request shall be filed within 30 days of the Administrator's decision, shall be in writing, and shall set forth the manufacturer's objections to the Administrator's decision and data to support the objection(s).

B. Average, Banking and Trading

Information Items Required Under the ABT Program:

● Intent to include the engine family in the ABT program;

● Declaration that participation in this program will not cause the applicable emission standard to be exceeded (i.e., result in a negative credit balance);

● FEL;

● Projected applicable production volumes for the model year;

● Values required to calculate credits;

● Projected number of credits generated/used; and

● Designated use of generated credits and/or source of credits used.

The following ABT records are to be kept for eight years:

● EPA engine family;

● Engine identification number;

● Engine build date and model year;

● Power rating;

● Purchaser and destination;

● Assembly plant;

● FEL;

● Useful life;

● Projected and actual production for each model;

● Applicable production/sales volume -- actual quarterly and cumulative (this is required quarterly for all families participating in trading);

● Values required to calculate credits;

● Resulting type and number of credits generated/required;

● How and where credit surpluses are dispersed; and

● How and through what means credit deficits are met.

C. Production-Line Testing (PLT) Program

Under PLT, each calendar quarter, participating manufacturers must test a sample of their engines taken directly from the assembly line. These tests must be performed unless EPA approves a variation.

In the small SI, marine SI, and large SI engine sectors, only Phase 2 small SI engines are subject to PLT requirements. Phase 2 refers to a second, more stringent tier of emission regulations for small SI engines. The different provisions in these and other small SI emission control programs are designed to ease manufacturers' transition from Phase 1 to Phase 2 standards. Participation in PLT is optional for small volume engine manufacturers and small volume engine families; or engine families with limited production (see section 5(c) for details). Engine families, regardless of size, which the manufacturer opts to conduct in-use testing, are exempt from PLT requirements. All manufacturers and engine families, however, remain subject to SEAs. PLT is mandatory for all other small SI, large SI engines, marine SI, and recreational vehicles participating in the ABT program, subject to sample size limits on the number of vehicle(s) per PLT reporting period.

EPA may require a manufacturer to submit or retain additional information not specifically listed here. Generally, that information will be requested to further identify or explain elements required in the application or better understand data submitted to demonstrate compliance with the standard. Each nonroad SI category has a regulation authorizing EPA to request additional information if needed to better understand and evaluate an application for certification. Since this is done only in concert with an application, on an individual manufacturer basis, and the information request may vary in what is sought, this information is not covered in this information collection request.

Within 45 days of the end of each quarter, manufacturers must report the following information (30 days for marine SI manufacturers):

● Location and description of the test facilities where testing was conducted;

● Total production and sample size for each engine family;

● Applicable standards and/or FELs;

● Description of the process used to obtain engines on a random basis; and

● Description of the test engine.

For each test conducted, manufacturers must submit the following information:

● Description of the test engine, including engine family and configuration, year, make, build date, engine ID number, and number of hours of service accumulated on the engine prior to testing;

● Location(s) where service accumulation was conducted and description of accumulation procedure and schedule;

● Test number, date, test procedure used, initial test results before and after rounding, final test results before and after rounding, and final deteriorated test results for all tests, etc.;

● Complete description of any adjustment, modification, repair, preparation, maintenance, and testing which was performed on the test engine, etc.;

● CumSum Analysis;[[2]](#footnote-2)

● Any other information the Administrator may request;

● For each failed engine, a description of the remedy and test results for all retests;

● Date of the end of the engine manufacturer's model year production for each engine family;

● A signed statement (e.g., see §1054.201(e) for small SI engines) and endorsement by an authorized representative of the manufacturer; and

● Submit, upon request: 1) projected production for each configuration within each engine family for which certification has been requested and/or approved; and 2) Number of engines, by configuration and assembly plant, scheduled for production or actually produced.

Record and maintain the following information for one year after completion of testing:

● Description of all testing equipment used and each test cell that can be used to perform PLT;

● Date, time, and location of each test or audit;

● Number of service accumulation hours on the test engine at the start and end of the test(s);

● Names of all supervisory personnel involved in the conduct of the test or audit;

● Record and description of any adjustment, repair, preparation or modification performed on test engines, including date, associated time, justification, name(s) of the authorizing personnel, and/or name(s) of supervisory personnel responsible for the conduct of the repair;

● If applicable, the date the engine was shipped from the assembly plant, associated storage facility or port facility, and the date the engine was received at the testing facility;

● Complete record of all PLT emission tests or audits performed (except tests performed directly by EPA), including all individual worksheets and/or other documentation relating to each test, or exact copies; and

● Brief description of any significant events during testing not otherwise described, commencing with the test engine selection process and including such extraordinary events as engine damage during shipment.

If an engine family fails PLT, its certificate of conformity may be suspended, effective from the time testing was completed. Before suspending a certificate, EPA will work with the affected manufacturer to achieve appropriate production line changes and try to avoid the need to halt engine production. Manufacturers with a suspended certificate must remedy the non-conformity, retest or re-audit. After a successful test is completed, the manufacturer must submit a report with the same information required during the initial test.

For EPA to consider reinstating a suspended certificate of conformity, the manufacturer must submit another report with the following information:

● Description of the reason for noncompliance;

● Description of the proposed remedies, including a description of any proposed quality control measures to be taken to prevent future occurrences of the problem, and the date when the remedies will be implemented;

● Demonstration, through testing, that the failed engine family does in fact conform;

● Manufacturers may request a hearing; and

● Manufacturers may request conditional reinstatement of a revoked certificate while conducting further testing.

The manufacturer must submit a request for public hearing, if the reason for suspension of the certificate is being challenged. This request must be made in writing within 15 days of the revocation. Four copies of the request must be filed containing the following information:

● Statement regarding which engine family configuration(s) will be the subject of the hearing;

● Concise statement of the issues to be raised at the hearing;

● Statement specifying reasons why the manufacturer believes it will prevail on the merits of each of the issues raised; and

● Summary of the evidence which supports the manufacturer's position on each of the issues raised.

D. In-use Testing Programs

There are in-use testing requirements for large SI and marine SI engines. There is no in-use testing requirement at this point for recreational vehicles. In-use records, including data generated in the engine procurement process, must be generally kept for eight years. Under this program, EPA selects for testing a number of engine families, generally not to exceed 25 percent of that year’s certified families. Manufacturers must complete the required testing and submit the data.

While some of the details of the in-use program may vary from one type of engine to another, the information collected is very similar. Generally, SI engine manufacturers submit:

● Engine family;

● Model;

● Engine serial number;

● Date of manufacture;

● Estimated hours of use;

● Results of all emission testing;

● Summary of all maintenance and/or adjustments performed;

● Summary of all modifications and/or repairs; and

● Determinations of compliance or noncompliance.

E. Selective Enforcement Auditing (SEAs)

While EPA performs SEAs sparingly, all engine and vehicle manufacturers are potentially subject to audits. After a manufacturer has been selected, EPA issues a test order specifying which engine models and configurations will be tested. When all required testing is completed, manufacturers submit a report containing all testing results. This "audit" information is then used to determine compliance with applicable emission standards.

Upon EPA's request, engine manufacturers must submit the following information regarding engine production. EPA uses these data to determine which engines will be audited.

● Projected U.S. sales data for each engine family and configuration;

● Number of engines, by configuration and assembly plant, scheduled for production within the time period designated by EPA;

● Number of engines, by configuration and assembly plant, storage facility or port facility, scheduled to be stored during the time period designated by EPA; and

● Number of engines, by configuration and assembly plant, produced during the designated period that are complete for introduction into commerce.

Within 30 calendar days of the end of each audit, nonroad SI manufacturers must submit a report to EPA based on the requirements in Section 1068.450. Manufacturers' reports should include the following information:

● Testing facilities' location and description.

● U.S.-directed production volume and number of tests for each engine family.

● Applicable standards or compliance levels against which the engines were tested.

● Description of the engine and the method used to select its emission-related components.

● For each test conducted, the following information:

-- Test engine description;

-- Location where service accumulation was conducted and a description of the procedure;

-- Test information, raw results, which include emission figures for all measured pollutants, for both valid and invalid test results;

-- A complete description of any modification, repair, preparation, maintenance and/or testing performed on the engine not previously reported. This must include the results of any emission measurements, regardless of the procedure or type of equipment;

-- Reason(s) for removal of engines from the test sequence (as authorization by EPA), if applicable; and

-- Any other information as requested by EPA.

* Statement of compliance and endorsement.
* For large SI and recreational engines, a report on each failed engine.
* Request for re-testing of failed engines, if applicable.
* Signed statement by an authorized manufacturer representative (for large SI and recreational engine manufacturers) as required under section 1068.450(c).

Records must be kept for one year after all ordered tests have been completed. Records may be kept in any media, according to the manufacturer's procedures, provided that in every case all the information contained in the hard copy is maintained. EPA may review manufacturer records at any time.

* General records: a description of all test equipment used, including the information submitted with the audit report described above.
* Individual records for each audit:
  + Date, time and location of each test;
  + Number of hours accumulated in each engine when testing began and ended;
  + Names of all supervisory personnel involved in the conduct of the audit;
  + Detailed records of all repairs performed prior/after EPA's authorization;
  + Any records related to an audit not in the written report;
  + Date engine(s) shipped, associated port/storage facility and date received, if applicable;
  + A complete record of all tests performed including worksheets and other documentation; and
  + Brief description of any significant event(s) that occurred during the audit.
* Manufacturers must be able to provide projected or actual production for an engine family, by assembly plant.
* Description of the equipment in each test cell that can be used to perform SEA testing, where applicable.

EPA can request manufacturers to submit additional SEA information or keep records not specifically listed in this section.

1. Defects and Recalls

In this Information Collection Request, we are consolidating Emissions Defect Information Reports and Voluntary Emission Recall Reports for nonroad Spark-Ignited engines and vehicles. All certificate holders “must investigate in certain circumstances whether engines/equipment that have been introduced into U.S. commerce under your certificate have incorrect, improperly

installed, or otherwise defective emission-related components or systems. This includes defects in

design, materials, or workmanship” (1068.501). Part 1068, Subpart F describes the process applicable to most certified engines/vehicles/equipment. For older engines/vehicles/equipment, a similar but slightly different process may apply under the applicable standard setting part. Manufacturers of defective HD engines used to submit their defects and recall reports under Part

85, Subparts S and T using the following Adobe Reader-based forms:

* Form 590-301 – HD Defect Information Reports
* Form 590-300 – HD Voluntary Emissions Recall Reports VERRs, and
* Form 590-302 – HD VER Quarterly Reports

However, EPA recently created a module within EV-CIS where manufacturers can submit the

data using webforms (screens) or XML files in the same way as they submit their applications for

certification. Therefore, the Adobe-Reader forms are no longer in use. Since the system is new and

some manufacturers may still need/want to use the forms, we are not requesting to discontinue these

forms at this time. Below is a description of the elements manufacturers must submit and the procedures governing a defect and recall report.

*Investigation Report*s

Manufacturers are required to start an investigation when their data indicates that an emission-related defect may exist in a substantial number of properly maintained engines. If the number of engines/equipment that have a possible defect reach a threshold specified in Section1068.501(e), the manufacturer must investigate. The thresholds are based on the family’s projected sales. Under Parts 85-94, the regulations generally trigger defect reporting requirements at 25 engines or more, and do not regulate the investigation phase. During the investigation phase, manufacturers must submit mid-year (by June 30) and end-of-year (by December 31) reports to describe the methods used and the status of the investigation. The reports must explain progress made and conclusions reached, including:

* Description of the defect and the engines that have it
* Estimates of the number or percentage of affected engines/equipment per class or category
* Estimate of the defect’s impact on emissions
* A plan for addressing the defect or an explanation of the reasons that the defect does not need to be addressed

*Emission Defect Information Reports (EDIRs)*

If the investigation shows that the number of defective engines/equipment in fact meet the

threshold, the manufacturer must submit an Emissions Defect Information Report (EDIR) within 21 days after learning that the threshold has been met. (Under Parts 85-94, the deadline is usually 15 working days.) These requirements apply only to engines that have already been sold to the public and remain in effect for five years after the model year in which the engine was certified. For engines subject to Part 1068, the requirements apply for the entire useful life of the engine or five years after the end of the model year, whichever is longer [40 CFR 1068.501(b)(4)].

Data items requested in Defect Information Reports include:

* The manufacturer's corporate name
* A description of the defect
* A description of the class or category of engines
* Number of vehicle or engines estimated or known to have the defect and explanation of derivation.
* The address of the plant(s) where they were produced
* Evaluation of the emissions impact and any driveability problems it might cause
* Available emissions data related to the defect
* Indication of any anticipated manufacturer follow-up

*Mandatory and Voluntary Recalls*

After a manufacturer determines that the applicable threshold was met, the manufacturer may

choose to recall the engines or EPA may order a recall. (For simplicity, we are referring to all recall

reports as VERRs, a widely used name, regardless of whether the recall was voluntary or mandated. Note, the EPA has rarely mandated a recall as a matter of compliance, but recalls may still be mandated in the course of enforcement for violations of the CAA. Under Part 1068.505(c), manufacturers have 60 days to submit a remedial plan (VERR). For other industries, if the recall involves 25 engines or more (one for locomotives), they must notify EPA about the recall within 15 days of the date they first started to notify engine owners.

Information items requested in VERRs include:

* A description of the class or category of engines being recalled
* A description of the modifications or repairs made to correct the defects
* A description of the method being used to identify and contact the owners
* A description of any conditions for eligibility for repair and any reasons for the conditions
* A description of the procedure to be followed by the owner to obtain repairs and where the repairs can be obtained
* If repairs are not being performed at dealers, a description of who will perform the repairs and where the defect will be remedied
* Copies of the letters of notification to be sent to the vehicle owners
* A description of the system for assuring an adequate supply of parts is available for the repairs and that they are performed in a timely manner
* Copies of all necessary instructions to be sent to the persons who are to perform the repairs
* A description of the impact of the proposed changes on fuel consumption, drivability, and safety of the engines
* A sample of any labels to be applied to the participant engines identifying the recall being performed

*Recall Progress Reports*

VERR Quarterly Progress Reports (VERR updates) document the progress of voluntary (or

mandated) recalls. Manufacturers must submit VERR updates for six consecutive quarters following

the beginning of any recall campaign, or until all engines have been inspected, whichever comes first

(Part 1068.525(b)). These reports must be submitted no later than 25 working days after the end of each calendar quarter. For all industries, VERR updates generally include:

* Recall campaign number
* Date of owner notification and completion
* Number of engines known or estimated to be affected by the defect
* Number of or engines brought in and inspected as part of the campaign
* Number of engines found to have the defect after inspection
* Number of engines receiving repair
* Number of engines determined to be unavailable due to exportation, theft, scrapping or other reasons
* Number of engines determined to be ineligible because of improper maintenance or use
* Copies of any service bulletins sent to dealers which relate to the defect that had not previously been reported
* Copies of all communications transmitted to vehicle owners which relate to the defect to be corrected not previously submitted
* Revisions to any of the information previously submitted
* Vehicle owner contact information upon request

*Defects & Recalls Recordkeeping Requirements*

Defect and recall records must be kept for at least five years after the last report was submitted. Records may be kept in any format, as long as they are readily available and EPA can

inspect them:

* A paper copy of written reports
* The names and addresses of vehicle or engine owners who were notified
* For every engine or piece of equipment state whether it was inspected, disqualified or repaired

(ii) Respondent Activities

The activities manufacturers need to perform to comply with the requirements of each program are as follows:

A. Certification activities

● Review the regulations and the guidance document;

● Develop engine family groups;

● Test engines for compliance with emission standards;

● Develop deterioration factors, if applicable;

● Gather emissions data;

● Submit the fee filing form;

● Pay the corresponding fee;

● Submit the Application for Certification;

● Post a bond upon importation, if applicable;

● Retain and maintain records, and submit them upon Administrator's request; and

● Submit an annual production report.

B. ABT Activities

● Pre-certification Activities;

● Familiarization with the ABT program provisions;

● Determine which engine families will participate in ABT;

● Project applicable production volumes for the model year for all engine families;

● Submit ABT information with the certification application;

● Gather information regarding point of first retail sale;

● Monitor production volumes and engine sales (customary business practice);

● Develop and submit end-of-year reports;

● Develop and submit final reports; and

● Store, file, and maintain information as required.

C. Production Line Testing

● Gather/maintain production data (customary business practice);

● Read instructions and regulations;

● Train personnel;

● Project testing needs and plan schedules;

● Select engines to be tested;

● Inspect engines to be tested;

● Contract an independent facility to test engines (if needed);

● Test engines;

● Enter data and analyze it;

● Prepare and submit reports; and

● Keep records.

D. In-use Testing

● Read instructions and regulations;

● Train personnel;

● Plan activities;

● Procure engines;

● Ship engines;

● Maintain engines;

● Contract an independent facility to test engines (if needed);

● Test engines;

● Enter data and analyze it;

● Prepare and submit reports; and

● Keep records.

E. Selective Enforcement Auditing

● Gather/maintain production data (customary business practice);

● Read instructions and regulations;

● Provide pre-audit information;

● Plan activities;

● Train personnel;

● Test engines;

● Enter data and analyze it;

● Prepare and submit reports; and

● Keep records.

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

5(a) Agency Activities

As part of the implementation of the certification programs, EPA officials carry out the following activities:

● Review and interpret regulations, provide guidance;

● Gather applications from the industry, enter data into the database;

● Review the applications for completeness and accuracy;

● Verify that the correct engines have been selected and tested;

● Answer questions from manufacturers and the public;

● Issue appropriate certificates of conformity;

● Periodically perform maintenance or enhance the database;

● Make data available to the public, including making it available through the Internet;

● Analyze and manage requests for confidentiality;

● Determining if "carry-over" of data from a previous model year is appropriate or if new testing will be required; and

● Store, file and maintain data.

Activities related to ABT involve:

● Reviewing requirements and providing guidance;

● Entering the data into the database;

● Receiving quarterly and final reports, reviewing calculations, making sure that the information submitted by manufacturers is accurate and complete;

● Audit manufacturers reports and files to make sure all participants have zero or positive credit balances at the end of the year; and

● Keep records.

The following are EPA's activities associated with the implementation of the PLT and SEA Programs:

● Review and interpret applicable regulations;

● Answer questions from manufacturers and the public;

● Review submissions for format and completeness, input data into the database;

● Analyze data submitted in reports, compare results to standards and FELs;

● Request and review additional information as needed;

● Periodically perform maintenance or make enhancements to the database;

● Make data from completed test programs available to the public, including posting it on the Internet;

● Analyze and manage requests for confidentiality;

● Take any appropriate enforcement actions; and

● Keep records of the information submitted by manufacturers and EPA's actions and determinations.

EPA activities associated with the implementation of the in-use testing programs are similar:

● Review and interpret regulations;

● Answer manufacturers' questions;

● Evaluate testing programs submitted by manufacturers and ensure that the programs comply with applicable requirements;

● Enter data from reports into the database;

● Review submissions for format and completeness;

● Analyze information submitted;

● Keep records;

● Request and review additional information, as needed;

● Perform maintenance or make enhancements to the database;

● Make data from completed test programs available to the public, including posting it on the Internet; and

● Analyze and manage requests for confidentiality.

In addition, when conducting SEAs, the agency must:

● Request and gather production data from manufacturers;

● Determine which manufacturers and engine families to audit;

● Issue an SEA test order;

● Travel to the testing laboratory to witness the testing; and

● Oversee testing, ensure proper procedures are followed, answer questions.

5(b) Collection Methodology and Management

Engine, vehicle, and equipment manufacturers use EPA's Engines and Vehicles Compliance Information System (EV-CIS), formerly the Verify System, to report certification and compliance information for emissions and fuel economy. EV-CIS collects emissions and fuel economy compliance information for all types of vehicles (mobile sources of air pollution) including nonroad SI engines. Additional information about EV-CIS and how manufacturers use the system can be found at https://www.epa.gov/vehicle-and-engine-certification/how-register-engines-and-vehicles-compliance-information-system-ev.

For compliance programs, such as ABT, PLT and In-use Testing, as well as for production reporting, EPA has developed Excel-based forms. These forms can be downloaded from EPA's website at https://www.epa.gov/vehicle-and-engine-certification/compliance-reporting-nonroad-spark-ignition-si-engines. Manufacturers may submit these forms through the document module and upload to EV-CIS. SEA reports can be submitted electronically through EV-CIS to the EPA, but the manufacturer may also submit these reports using other methods, though not recommended, such as pdf email attachment or sent through the mail service.

Once the data are received, the certification representative analyzes the information to ensure compliance with the CAA and applicable regulations.

Non-confidential portions of the applications for certification are available at https://www.epa.gov/importing-vehicles-and-engines/how-obtain-copy-certificate-conformity-heavy-duty-or-nonroad-engine.

5(c) Small Entity Flexibility

SI regulations contain a series of opportunities to ease the burden on small entities. For example, participation in the small SI PLT program is optional for 'small volume engine manufacturers' and 'small volume engine families.' A 'small volume engine manufacturer' is, as defined at section 1054.801; "[f]or nonhandheld engines an engine manufacturer that had U.S.-directed production volume of no more than 10,000 nonhandheld engines in any calendar year." For handheld engines, the term 'small volume engine manufacturer' means "an engine manufacturer that had U.S.-directed production volume of handheld engines of no more than 25,000 handheld engines in any calendar year." A "small volume engine family" may have one of two definitions, depending on the emissions of the engine family. For requirements related to exhaust emissions for nonhandheld engines and to exhaust and evaporative emissions for handheld engines, small-volume emission family means any emission family whose U.S.-directed production volume in a given model year is projected at the time of certification to be no more than 5,000 engines. For requirements related to evaporative emissions for nonhandheld equipment, small-volume emission family means any equipment manufacturer's U.S.-directed production volume for identical fuel tank is projected at the time of certification to be no more than 5,000 units. Tanks are generally considered identical if they are produced under a single part number to conform to a single design or blueprint. Tanks should be considered identical if they differ only with respect to production variability, post-production changes (such as different fittings or grommets), supplier, color, or other extraneous design variables.

Small volume manufacturers of certain outboard & personal watercraft engines may exempt their engine families from PLT and in-use testing. They may also use surrogate data for certification, corporate average standards, multi-year averaging in AB&T, among others.

The provisions of 40 CFR part 1068 also provide flexibilities for engine and equipment manufacturers who find themselves in a difficult situation at the start of a new set of regulations. Section 1068.245, 1068.250 and 1068.255 provide additional time for manufacturers to comply with regulations if they meet a number of criteria.

Under the other programs included in this ICR, the information being requested is the minimum needed to effectively maintain the programs' integrity and comply with the requirements of the Clean Air Act.

5(d) Collection Schedule

Collection frequency is largely determined by the manufacturer's marketing and product plans. Information must be submitted for each 'model year' that a manufacturer intends to build (or import) an engine model. A certificate of conformity must be obtained before a manufacturer (or importer) may introduce an engine or piece of equipment into U.S. commerce. Taking these two considerations into account, manufacturers normally submit information on an annual basis and submit their applications at their earliest convenience.

Amendments to certification applications are submitted by manufacturers as the need may occur during a model year. PLT reports are submitted quarterly. SEA reports are submitted on occasion, after EPA has completed an audit. The in-use testing program requirements vary by industry.

6. Estimating the Burden and Cost of the Collection

6(a) Estimating Respondent Burden

Burden estimates were taken from the previous ICRs and adjusted to reflect experience gained by EPA and comments from respondents consulted by EPA. These estimates are included in Tables 2 through 6 in the worksheet that is available in the docket. In addition, we are consolidating defect and recall reporting (EDIR and VERR) into this ICR for nonroad engines and vehicles. We have been able to make further use of our EV-CIS system to further evaluate the certification and compliance information submitted by the regulated community to better evaluate the burden of our regulatory programs.



6(b) Estimating Respondent Costs

(i) Estimating Labor Costs

To estimate labor costs, EPA used the Bureau of Labor Statistics' (BLS) National Industry-specific Occupational Wage Estimates (May 2020) for the Engine and Turbines Industry under Standard Industrial Classification (SIC) code 351 and increased by a factor of 2.1 to account for benefits and overhead. (see: <http://www.bls.gov/oes/current/naics4_333600.htm>). A reference between the applicable SIC and NAICS codes used to update hourly rates for this ICR is available on the BLS website at: <http://www.bls.gov/ppi/ppisicnaics14.htm>. Mean, hourly rates were used for this estimate and are listed below.

Table 1  
Labor Costs Estimates

|  |  |  |  |
| --- | --- | --- | --- |
| Occupation | SOC Code Number | Mean Hourly Rate (BLS) | Rate Increased by Factor of 2.1 |
| Mechanical Engineers | 17-2141 | $45.17 | $94.86 |
| Engineering Managers | Nov-41 | $72.53 | $152.31 |
| Lawyers | 23-1011 | $85.75 | $180.08 |
| Secretaries, Except Legal, Medical and Executive | 43-6014 | $21.89 | $45.97 |
| Mechanical Engineering Technicians | 17-3027 | $31.81 | $66.80 |

(ii) Estimating Capital and Operations and Maintenance Costs

Capital costs (associated with building emission testing facilities) were incurred by manufacturers as the industries became regulated for the first time. In the large SI sector, those respondents that control the vast majority of the market are companies which manufacture engines regulated under other programs (such as the small SI or marine SI regulations) and have already invested in developing their own test cells. Section 6(d)(1) provides more details. The small production volume of the other respondents makes it more economical for them to contract out their testing needs than to build expensive test cells. EPA does not expect any new engine manufacturers to build their own emission testing laboratories over the next three years. Other potential one-time capital costs are covered under the previous ICR estimates and renewals and do not need to continue as an estimate of cost in this ICR renewal. Therefore, capital costs are excluded from this ICR. Other emission testing expenses are included as operation and maintenance (O&M) costs as explained below.

O&M costs associated with this information collection may include as applicable compact discs (CDs), photocopying, postage & shipping expenses, calls, maintenance of emission laboratories, and testing costs. CDs may still be used by manufacturers to submit their electronic applications and to keep records. Wherever possible, EPA obtained and used current manufacturer costs. For others, EPA used the Consumer Price Index Inflation Calculator on the BLS website to determine the updated cost (available at <http://www.bls.gov/data/inflation_calculator.htm>), with the estimated value rounded to the nearest one hundred.

Engine manufacturers that have in-house testing facilities use them for all their certification and compliance testing needs as well as for research and development. The cost of maintaining these laboratories has been estimated at $79,952.08 per year, per manufacturer. This estimate (which appears under the certification program estimates) includes the cost of test fuels, calibration gases and equipment.

EPA has also accounted for the cost incurred by those manufacturers who hire an outside laboratory to conduct the necessary certification and compliance emission testing. The test costs used are based mainly on data received from testing laboratories and vary according to the type of engine. Certification and durability testing are a one-time expense per engine family since manufacturers can carry-over emissions data from one model year to the next and has been annualized.

For calendar year 2021, engine manufacturers are required to pay a fee of $563 for all SI engine certification and $397 for component certification when submitting an application for a certificate of conformity. For Heavy Duty SI engines, manufacturers are required to pay a fee of $61,917 for the 2021 calendar year. These fees are requested under the authority of the CAA Section 217. Additional information on how to pay a fee may be found at https://www.epa.gov/vehicle-and-engine-certification/fees-information-motor-vehicle-and-engine-compliance-program-mvecp. The fee is reduced when "the full fee exceeds 1.0 percent of the projected aggregate retail price of all vehicles or engines covered by that certificate." (69 FR 26226, Section F). The reduced fee must not exceed one percent of the aggregate retail price of the vehicles and engines covered by the certificate. Requirements for the various fees programs are covered under ICR 2080.07.

(iii) Capital/Start Up Operations and Maintenance Costs

There are no capital or startup costs associated with the renewal of this ICR. See 6(b)(ii) for details.

(iv) Annualizing capital costs

There are no capital costs associated with the renewal of this ICR. See 6(b)(ii) for details.

6(c) Estimating Agency Burden

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 8 - Annual Agency Burden and Cost** | | | | | | | | |
| **Employee** | **Hours and Labor Cost** | | | | | | | |
| **Level** | **Rate** | **Rate Increase by 1.6** | **Number of Employees** | **Full time hours** | **% of Time** | **Total hr/yr** | **Total Labor cost/yr** |
|  |  |  |  |  |  |  |  |  |
| Engineer | GS-13/6 | $56.75 | $90.80 | 10 | 2080 | 100% | 20800 | $1,888,672 |
| Contract | GS-13/6 | $56.75 | $90.80 | 1 | 2080 | 30% | 624 | $56,660 |
| Attorney | GS-13/7 | $58.37 | $93.40 | 1 | 2080 | 20% | 416 | $38,853 |
| Managers | GS-15/1 | $66.72 | $106.75 | 1 | 2080 | 100% | 2080 | $222,044 |
| SES-1 | SES - 1 | $82.93 | $132.69 | 1 | 2080 | 15% | 312 | $41,400 |
| IT Support | GS-13/6 | $56.75 | $90.80 | 5 | 2080 | 30% | 3120 | $283,301 |
| SEE Support |  |  |  | **6** | **2080** | **100%** | **12480** | $415,000 |
| **Subtotal** |  | | | **25** | **N/A** | **N/A** | **39,832** | **$ 2,945,930** |
| **O&M Costs** | | | | | | | | |
| Testing |  |  |  |  |  |  |  | $200,000 |
| Other |  |  |  |  |  |  |  | $20,000 |
| SEE Support |  |  |  |  |  |  |  | $177,066 |
| Contract Support - Compliance |  |  |  |  |  |  |  | $83,000 |
| Contract Support -Certification |  |  |  |  |  |  |  | $200,000 |
|  |  |  |  |  |  |  | **Subtotal:** | **$ 680,066** |
|  |  |  |  |  |  |  | **TOTAL:** | **$ 3,625,996** |

The GECC administers SI certification and compliance programs. There are currently ten full-time employees in Ann Arbor, MI, and six Senior Environmental Employment (SEE) Program (for clerical support) dedicated to the activities covered by this ICR. Other EPA employees from Washington, DC and Ann Arbor also provide support for these activities, such as IT personnel, agency lawyers at the Office of General Counsel and the Office of Enforcement and Compliance Activities, work assignment/contract managers, upper management, etc. Contract support is also provided for database development/maintenance as well as compliance program report processing. Table 8 summarizes EPA’s approximate overall burden associated with this ICR.

These costs are based on hourly wage rates that are effective as of January 2021 as obtained from the Office of Personnel Management (OPM) and adjusted by a factor of 1.6 to account for benefits and overhead. For purposes of estimating Agency labor costs, the labor rates for engineers, lawyers, and managers from the Detroit, MI area were used to reflect the fact that nearly all Agency labor costs for the NRSI programs will be incurred at OTAQ’s Ann Arbor, MI location. These rates are available at https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2021/saltbl.pdf. The rates for executives (SES-1) were also obtained from OPM at: https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2021/executive-senior-level.

Table 8  
Agency Labor Costs

(Detroit Metro Area)

|  |  |  |  |
| --- | --- | --- | --- |
| **Employee** | **Hours and Labor Cost** | | |
| **Level** | **Rate** | **Rate Increase by 1.6** |
|  |  |  |  |
| Engineer | GS-13/6 | $56.75 | $90.80 |
| Contracts | GS-13/6 | $56.75 | $90.80 |
| Attorney | GS-13/7 | $58.37 | $93.40 |
| Managers | GS-15/1 | $66.72 | $106.75 |
| SES-1 | SES - 1 | $82.93 | $132.69 |
| IT and Admin Support | GS-13/6 | $56.75 | $90.80 |

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

6(d) (1) Certification Estimates–



This Table 2 has been truncated for the purposes of display in this supporting statement. A complete chart is available of this Table 2 in the docket. Based on the number of emission certification applications received for model year 2018, there are 430 unique SI engine manufacturers and SI evaporative component manufacturers in the U.S. market today. Combined, these respondents submitted 2,133 applications, 1,386 of which were carry-over.

SI engine manufacturers comply with EPA’s testing requirements by either using their own in-house testing laboratories or by hiring outside test labs. The proportion of manufacturers that have maintained their own test labs versus manufacturers that contract to a test lab for certification and/or compliance testing has varied over the course of the previous ICR period. Therefore, we have previously estimated, from information provided by testing laboratories and respondents, an amount of $73,300 per year annualized capital and O&M cost for forty-two SI vehicle and engine respondents maintaining their own in-house test facilities. This estimate includes the cost of test fuels, calibration gases and equipment. The full amount was included in certification estimates.

Engine manufacturers need only submit testing results the first time an engine family is certified, unless changes are made to the engine design that are expected to significantly affect emissions. These changes are largely driven by market forces but issues with compliance or defect reports may also necessitate a change in emissions design. That new data generated may then be used in subsequent years to certify the engine family. This use of previously generated test data or “carry-over” of data significantly reduces the overall cost of engine family certification year after year.

6(d)(2) Average, Banking and Trading – Table 3

Participation in the ABT Program is voluntary for most industries. Burden was estimated using the number of manufacturers who indicated participation in their certification applications. The ABT program is an optional program for engine and vehicle manufacturers to certify and engine family where they may “average, bank, and trade” emission credits for purposes of certification to show compliance with the emissions standard of a pollutant. To do this they must certify their engines or vehicles to Family Emission Limits (FELs) and show that their average emission levels for all their engine or vehicle families together are below the emission standards, or that they have sufficient credits to offset a credit deficit for the model year. The ABT program and its reporting and recordkeeping obligations should not be confused with the annual production reporting and recordkeeping requirements, which still must be submitted following the end of the model year. Production reporting and recordkeeping is tallied within the certification requirements of this ICR. ABT was set apart as an additional, voluntary obligation.



6(d)(3) Production-line Testing – Table 4

Table 4 Production-Line Testing

The number of tests manufacturers must perform under the PLT program depends on several factors. However, per §1054.310(g), §1045.310(g), §1048.310(g)(1) and §1051.310(g)(1), the sample size need not exceed the lesser of: 1) 30 engines per engine family; or 2) one percent of the projected annual U.S. production for that engine family. Some engine families may be exempted from PLT based on low projected production, or special provisions for small volume manufacturers and/or small volume engine families. In addition, for some engine families, it may take several calendar years to accumulate service and conduct in-use testing, delaying the completion of in-use testing over several years. To calculate the number of PLT reports received, EPA used the actual number of reports received for model years 2018-2020 and averaged the results annually as the most accurate and most complete data set at the time of this renewal.



6(d)(4) In-use Testing – Table 5

The compliance in-use program requirements, not to be confused with in-use certification testing for certain types of engines (LSI), are different for different types of engines. For example, large SI manufacturers are required to conduct in-use testing. They need to test at least two engines if: 1) the manufacturer's total production is 2,000 or less; or 2) if the engine family in particular has a production volume of 500 engines or less (1068.410(c)(1)). For Marine SI, the In-use Testing Program requires EPA to order testing of up to 25 percent of each manufacturer's total number of certified engine families. Other NRSI engines and vehicles are not required to conduct in-use testing. EPA has accounted separately for the cost incurred by those with in-house labs vs. those who contract out testing services.



6(d)(4) Selective Enforcement Audits – Table 6

The EPA has conducted SEA testing over the previous three-year periods, 2018-2020. However, due to travel concerns beginning in calendar year 2020, the EPA has had to alter its plans to conduct an SEA. Our estimates for this renewal are based on an average number of SEA test orders over the previous three years on an annual basis. To conduct an SEA test, the EPA has audited the testing facility as well as the engine or equipment provided in the test order. Our estimates for SEA testing have been altered to represent the use of this valuable, if time-consuming, tool.

Table 6 Selective Enforcement Audits



6(e) Bottom Line Burden Hours and Cost Tables

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Number of Respondents** | **Total Labor Hours Per Year** | **Average Hours Per Respondent** | **Average Cost Per Respondent** |
| 430 | 738,603.0 | 1,717.68 | $221,768.97 |

(i) Respondent Tally



Number of Respondents: 430

Number of Activities per Respondent: 37

Total Hours Per Year: 738,603.0

Total Labor Cost: $65,940,385.02

Total Annual Capital Costs: $0

Total Annual O&M Costs: $30,243,492.65

Total Costs: $95,360,655

(ii) The Agency Tally

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 8 - Annual Agency Burden and Cost** | | | | | | | | |
| **Employee** | **Hours and Labor Cost** | | | | | | | |
| **Level** | **Rate** | **Rate Increase by 1.6** | **Number of Employees** | **Full time hours** | **% of Time** | **Total hr/yr** | **Total Labor cost/yr** |
|  |  |  |  |  |  |  |  |  |
| Engineer | GS-13/6 | $56.75 | $90.80 | 10 | 2080 | 100% | 20800 | $1,888,672 |
| Contract | GS-13/6 | $56.75 | $90.80 | 1 | 2080 | 30% | 624 | $56,660 |
| Attorney | GS-13/7 | $58.37 | $93.40 | 1 | 2080 | 20% | 416 | $38,853 |
| Managers | GS-15/1 | $66.72 | $106.75 | 1 | 2080 | 100% | 2080 | $222,044 |
| SES-1 | SES - 1 | $82.93 | $132.69 | 1 | 2080 | 15% | 312 | $41,400 |
| IT Support | GS-13/6 | $56.75 | $90.80 | 5 | 2080 | 30% | 3120 | $283,301 |
| SEE Support |  |  |  | **6** | **2080** | **100%** | **12480** | $415,000 |
| **Subtotal** |  | | | **25** | **N/A** | **N/A** | **39,832** | **$ 2,945,930** |
| **O&M Costs** | | | | | | | | |
| Testing |  |  |  |  |  |  |  | $200,000 |
| Other |  |  |  |  |  |  |  | $20,000 |
| SEE Support |  |  |  |  |  |  |  | $177,066 |
| Contract Support - Compliance |  |  |  |  |  |  |  | $83,000 |
| Contract Support -Certification |  |  |  |  |  |  |  | $200,000 |
|  |  |  |  |  |  |  | **Subtotal:** | **$ 680,066** |
|  |  |  |  |  |  |  | **TOTAL:** | **$ 3,625,996** |

6(f) Change in Burden

Our previous computation and renewal request failed to provide estimates of Defect, Recall, Evaporative Components, and compliance testing, as differentiated from certification testing. In addition, the California Air Resources Board has adopted a new fuel standard for spark-ignition engines, that has taken affect. Manufacturers must conduct new testing to satisfy the new fuel requirement and durability demonstration, which has increased the number of manufacturers that must conduct new testing at the time of certification. These increases in testing, more detailed compliance testing and reporting requirements, consolidation of additional regulatory programs applicable to NRSI engines and vehicles, has increased the burden now assessed to comply across all of these industries for these regulatory requirements. For example, under ICR 1695.13, we failed to account for O&M costs for contracting to test engines, vehicles and components with a third-party test lab. While we state the estimated contract cost amount, we did not account for the number of articles tested by each manufacturer in factoring that cost, an undercount of approximately $60,000 annually. In addition, evaporative component testing in-house and at contract third-party facilities seems to have only been estimated at $233,200 annually in our previous ICR. For this ICR, under our improved calculation methodology discussed and provided above, we now estimate evaporative component testing to be $ $733,065.85 As a result of these adjustments and additions, there is an increase in hours for the industries involved to 738,603.0 hours for the total estimated burden in this collection, as opposed to the previous ICR estimate of 200,628.8 hours annually. There have been no regulatory changes by the EPA to the programs covered by this ICR. This increase is primarily due to an adjustment in the hours required to file a complete application for certification and conduct compliance activities throughout a calendar year, additional testing as a result of a change in California test fuel, combined with the consolidation of evaporative components and aggregation of Defect and Recall reporting. Other adjustments were simply recalculation of PLT and In-Use compliance reporting, accounting for the record-keeping required by our regulations. These adjustments to O&M account for an increase in O&M from $ 3,465,956.08 to $ 15,012,611.23.

The burden identified in the Inventory is a combination of the burden previously identified in ICR1695.13 and communications between EPA and the regulated community. A review of all the programs included in the previous ICR reflected that the number of respondents previously estimated was higher than current estimates, particularly for evaporative components, and the hours needed to reflect the adjustment to the use of carry-over applications and contracting out the test work for certification and/or compliance testing by some manufacturers. Table 8 below summarizes the total number of respondents per ICR.

Table 8 Number of Respondents per ICR

|  |  |
| --- | --- |
| Information Collection (IC) | Estimated Number of Respondents per ICR |
| 1695.11 Certification and Compliance for All SI engines and evaporative components | 620 |
| 1695.14 Certification and Compliance for All SI engines and evaporative components | 430 |
| Difference: | -190 |

Other minor factors for the adjustment in the overall burden previously discussed are: (1) additional testing conducted ot meet the California fuel standard change; and (2) more extensive use of web-based system where manufacturers can submit their responses, including applications for certification and compliance reports included in this ICR.

6(g) Burden Statement

The annual public reporting and recordkeeping burden for this collection is estimated to average 47.45 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to 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. Each component of the respondents activities are represented in the full certification spreadsheet (Table 2 above) available for review in the docket. 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 published a notification of this ICR on June 2, 2021 and opened this ICR for comment. We have established a public docket for this ICR under Docket ID Number EPA-HQ-OAR-2021-0329, which is available for online viewing at [www.regulations.gov](http://www.regulations.gov), or in person viewing at the Air and Radiation Docket and Information Center in the EPA Docket Center (EPA/DC), EPA West, ), EPA West, Room 3334, 1301 Constitution Avenue, NW, Washington, D.C. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket and Information Center is (202) 566-1742. The electronic version of the public docket at [www.regulations.gov](http://www.regulations.gov) may be used to submit or view public comments, access the index listing of the contents of the public docket, and to access all documents in the public docket. 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-2021-0329and OMB Control Number 2060-0338 in any correspondence. No comments were received by the EPA from the public.

1. For example, under 40 CFR § 1054.801, Useful life means the period during which the engine and equipment are designed to properly function in terms of power output and intended function, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. It is the period during which a nonroad engine is required to comply with all applicable emission standards. [↑](#footnote-ref-1)
2. CumSum is the cumulative summation used for the PLT calculation to determine the sequential analysis of engine production from a product line. The CumSum equation is represented as Ci = Max [0 or Ci-1 + Xi−(STD + 0.25 × σ)]; where: Ci = The current CumSum statistic; Ci-1 = The previous CumSum statistic; Xi = The current emission test result for an individual engine; STD = Emission standard (or family emission limit, if applicable).

   [↑](#footnote-ref-2)