

**Supporting Statement**  
**for**  
**Information Collection Request**

Emissions Certification and Compliance Requirements for  
Marine Spark-Ignition Engines (Renewal)

42 USC 7521 § 206  
42 USC 7521 § 208  
42 USC 7521 § 213(d)  
40 CFR Part 91

NOVEMBER 2007

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

## **1. Identification of the Information Collection**

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

Emission Certification and Compliance Requirements for Spark-ignition Marine Engine (Renewal), EPA Number 1722.05, OMB Control Number 2060-0321.

### **1(b) Short Characterization**

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 certain spark-ignition (SI) engines used to propel marine vessels that comply with applicable emission standards. Such a certificate must be issued before engines may be legally introduced into commerce. To apply for a certificate of conformity, manufacturers are required to submit descriptions of their planned production line, including descriptions of the emission control system, and engine emission test data. This information is organized by "engine family." An engine family is a group of engines expected to have similar emission characteristics.

There are also record-keeping requirements. Under the regulations governing marine SI engines, manufacturers must use the Averaging, Banking, and Trading Program (AB&T) and must submit information regarding the calculation, actual generation and usage of emission credits in a certification application, an end-of-the-year report, and final report. These reports are used for certification and enforcement purposes.

The Act also mandates EPA to verify that manufacturers have successfully translated their certified prototype engines 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 increases efficiency and reduces the cost of correcting mis-builts and other errors made in the assembly line. Under the In-use Testing Program (In-use), manufacturers are required to test engines after a number of years of use to verify that they comply with emission standards throughout their useful lives.

It has been estimated that a total of 12 manufacturers will respond to this collection with an approximate cost of \$1,608,844, including \$219,223 in annualized capital or O&M costs.

## 2. Need for and Use of the Collection

### 2(a) Need/Authority for the collection

EPA's emission certification programs are statutorily mandated; the EPA 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 in excess of one year) as he may prescribe."

Section 213(d) of the CAA extend this and other provisions (including the ones cited below) to marine SI engines. Regulations implementing these requirements are found at 40 CFR Part 91, Subparts A, B, D, E, L, and M.

EPA also conducts, under 40 CFR Part 91, Subpart C, an Averaging, Banking, and Trading (AB&T) program. This program is one of many regulatory features designed to enhance compliance flexibility for, and reduce the burden on, the affected engine manufacturers, without compromising the expected emissions benefit derived from these emissions standards.

Section 206(b)(1) of the Act authorizes EPA to require testing of new vehicles and engines to verify that actual production engines do comply with emission standards. The requirements of the Marine SI Production Line Testing Program (PLT) are codified at 40 CFR 91, Subpart F.

Section 207(b) of the Act 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. The In-use Testing Program procedures for marine SI engines are codified at 40 CFR 91, Subpart I.

### 2(b) Practical Utility/Users of the Data

EPA uses the information requested under this collection to verify and support a three stage compliance assurance system envisioned in the CAA. The certification information is needed to verify that the proper prototype engines have been selected to represent each marine SI engine family (group of engines expected to have similar emission characteristics), and that the necessary testing has been performed to assure that each marine SI engine family complies with emission standards. Based on this

information, EPA issues a certificate of conformity. However, prototypes are often hand-built and not typical of assembly line engines.

The information collected under the PLT program is used to verify that manufacturers have successfully translated their prototypes into mass-produced engines. A sample of engines is taken directly from the assembly line and tested. This self-audit program allows manufacturers to monitor compliance with statistical certainty. It minimizes the cost of correcting errors through early detection (manufacturers need to recall engines if they are later found defective) and the additional pollution generated by defective, noncompliant engines being used before a problem is detected.

In-use testing is design to determine if engines maintained in accordance with the manufacturers instructions still emit at acceptable levels after a number of years of actual use. If a family of marine SI engines is found not to comply, manufacturers are required to recall the family.

The AB&T program allows manufacturers to generate emission credits. Under averaging, a manufacturer could certify one or more engine families within its product line at levels above the emission standard, provided the increased emissions are offset by emission reductions from one or more families certified below the standard. The average emissions (weighted by horsepower and production) from all the manufacturer's engine families involved in the program in a given model year must be at or below the corporate average emission standard. The banking program allows manufacturers to bank credits generated in one model year for use in averaging or trading in subsequent model years. The trading program allows credit transactions between manufacturers. The AB&T program minimizes the economic burden on the manufacturers by allowing them to apply a fleet average technology mix to minimize their cost and maintain a variety of products. It reduces the impact of the program by allowing higher emitting engines to be off-set by engines with lower emissions. Participation in the averaging portion of the AB&T program is required.

The information will be received, reviewed, and used by the Heavy-duty and Nonroad Engines Group (HDNEG), Compliance and Innovative Strategies Division, Office of Transportation and Air Quality, Office of Air and Radiation. Non-confidential portions of the information submitted to HDNEG are also used by importers, engine users, and environmental groups.

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

#### **3(a) Nonduplication**

The information requested under this ICR is required by statute. Because of its specialized (and sometimes confidential) nature, and the fact that some of it must be submitted to EPA prior to the start of production, the information collected is not available from any other source.

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

An announcement of the public comment period for this ICR renewal was published in the Federal Register (72 FR 54654) on September 26, 2007. No comments were received.

### 3(c) Consultations

EPA consulted the representatives of the following respondents regarding this information collection burden.

Contact: Spencer Hosokawa  
Company: Kawasaki  
Phone: (949) 770-0400

Contact: Thomas Pugh  
Company: Yamaha Motor Corporation, U.S.A  
Phone: (714) 761-7807

### 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 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.

Entities electing to engage in emission credit trades or transfers must submit quarterly reports of their holdings or receipts when their credits are gained or lost. The number of credits generated or lost is proportional to the number of engines produced; therefore, it is best for manufacturers trading credits to update their credit calculations every quarter when they update their internal production volume reports. This ensures that the manufacturer holds valid credits and warns manufacturers in advance of the need to acquire credits. Manufacturers must not have a negative credit balance at the end of the year.

PLT reports must also be submitted on a quarterly basis for similar reasons. Manufacturers are required to test up to one percent of their production at random to ensure that mass produced marine SI 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. By conducting this quality control testing on a quarterly basis, manufacturers learn about any problems early and are, therefore, able to minimize costs.

In-use testing reports must be submitted once per year, within three months of the completion of the required testing. Providing this information to EPA at a less frequent

interval would compromise the Agency's ability to expeditiously evaluate the emissions results and determine, in a timely manner, whether in-use marine SI engines conform to emission standards. Any delay in making such a determination reduces the universe of marine SI engines which will be reached by the recall because both engine scrappage and owners' unwillingness to participate in recalls increase with the age of the engine.

### 3(e) General Guidelines

According to 40 CFR 91.121 and 91.209, certain records must be maintained for eight years. However, "records may be retained as hard copy or reduced to microfilm, ADP film, etc., depending on the manufacturer's record retention procedure, provided that in every case all the information contained in the hard copy is retained." These record-keeping requirements originate, in large part, from the statutory requirement to warrant some emission-related components for long periods of time. In addition, the manufacturers must comply with requirements to recall vehicles and engines failing to meet emission standards during their useful life.

Manufacturers are required to submit confidential business information such as sales volume projections and certain sensitive technical descriptions (see section 4(b)(i) below for reference). This information is kept confidential 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. Also, non-proprietary information submitted by manufacturers is held confidential until the specific engine to which it pertains is available for purchase.

Also, if PLT results indicate noncompliance, manufacturers are required to notify EPA within ten days, instead of the 30 days provided by the guidelines. EPA needs this quick notification of test failures to rapidly evaluate the situation and determine whether the affected engine family does not comply with emission requirements. If that is the case, both the Agency and the manufacturer need to take appropriate action to prevent the introduction of noncomplying engines into commerce.

No other general guideline is exceeded by this information collection.

### 3(f) Confidentiality

Manufacturers are allowed to assert a claim of confidentiality over information provided to EPA. Confidentiality is provided in accordance with the Freedom of Information Act (FOIA) and EPA regulations at 40 CFR Part 2. For further detail, refer to section 3(e).

### 3(g) Sensitive Questions

No sensitive questions are asked in this information collection.

#### **4. Respondents and Information Requested**

##### **4(a) Respondents/SIC Codes**

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

336312 Gasoline Engine and Engine Parts Manufacturing

##### **4(b) Information Requested**

All manufacturers must describe their product(s) 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 records.

After the model's first production year, a manufacturer's burden for a given engine family is greatly reduced because data and information on an engine family from previous years can be "carried over" indefinitely, as long as no significant changes have occurred. For instance, an engine family certified in model year 2004 can be certified in the 2005 model year by "carry over" of data and paperwork from the 2004 model year if no significant changes have occurred to the engine family between model years. Allowing manufacturers to "carry over" data and paperwork saves manufacturers the burden of duplication of cost and effort which would occur in the absence of such provisions.

There are also warranty and maintenance requirements for all certified engine families.

##### **(i) Data Items**

The data items in the Tables A to J are requested under this information collection. Different items are requested depending on the type and specific characteristics of the engine family to be certified. Although most of the items must be included in the certification application, some of them are only required to be kept in records and submitted upon EPA's request, as provided by 91.107(f)(1).

EPA encourages manufacturers to apply for certification and submit PLT and In-use information electronically, and has developed simple electronic application formats.

The Spark-Ignition Marine Engine Application Form contains all the data items engine manufacturers need to submit. A complete application consists of (1) a Statement of Compliance, (2) a Family Information Form (FIF), (3) a Test Information Form (TIF), (4) a Part Number Information Form (PNIF), (5) a Model Summary (MS), and (6) an

AB&T Information form (AB&TIF). There is also a Marine Engine Production Line Testing Information Form and a Marine In-use Testing Information Form. Because these forms are regularly used by EPA, the expiration dates are not updated.

A. Certification:

**Table A**  
**Information Items Requested under the Certification Program**

<b>Information Description</b>	<b>Basis for Requirement</b>
Statement of compliance	91.107(b),(d)(10)& (11)
<b>FAMILY INFORMATION FORM</b>	
Identification and description of the basic engine design including, but not limited to, the engine family specifications (fuel, cooling medium, etc.)	91.107(d)
Explanation of how the emission control system operates	91.107(d)(2)
Vessel type (Useful life Period)	91.105(a)
Production period, estimated volume, plant & contact	91.107(e), 91.604(6)
Family Emission Limit	91.107(d)(7) 91.208(a)(2)
Adjustable Parameters description	91.107(d)(6)

(cont.)

**Table A**  
**Information Items Requested under the Certification Program (cont.)**

<b>Information Description</b>	<b>Basis for Requirement</b>
<b>TEST INFORMATION FORM</b>	
Test fleet description	91.107(d)(3)
Service accumulation duration	91.107(d)(5)
Cert test description & data	91.107(d)(4)
<b>PART NUMBER INFORMATION FORM</b>	
Emission-related part numbers	91.107(d)(2)
<b>MODEL INFORMATION FORM</b>	
Engine model description	91.107(d)(1)
<b>AB&amp;T INFORMATION FORM</b>	
(Item 51 does not exist)	-----



Number and type of credits	91.208(a)(3)
Power & Average actual life	91.208(a)(4)
Use or Source of Credit(s)	91.208(a)(5)

The Part Number Information form allows EPA to make sure that a production engine is actually built in its certified configuration. This information is used when conducting Selective Enforcement Audits (SEAs).

The engine Model Information Form is requested to evaluate whether engine families were developed correctly. The information contained in this form allows EPA engineers to determine whether the engine models were grouped correctly, and whether the certification test engine corresponds to the worst case within the engine family. The calculation of the engine's rated power, torque, etc., is customary business practice.

Manufacturers must use the averaging provisions to demonstrate compliance with the corporate average emission standard, and may use any "banked" emission credits for averaging or trading in the following three model years.

**Table B**  
**Record-keeping Requirements - Certification and AB&T**

<b>Information Description</b>	<b>Basis for Requirement</b>
Copies of applications & other summary information filed with EPA	91.121(a)(1)
Copy of all data obtained thru the production line and in-use testing program	91.121(a)(2)
A history of each test engine used for certification, including:	
A description of test engine's construction	91.121(a)(3)(i)
A description of engine's service accumulation method	91.121(a)(3)(ii)
A description of all maintenance and other servicing performed	91.121(a)(3)(iii)
A description of all emission tests performed	91.121(a)(3)(iv)
A description of all tests performed to diagnose engine or emission control performance	91.121(a)(3)(v)
A description of any significant event(s) affecting the test engine	91.121(a)(3)(vi)
Routine data from emission testing	91.121(b)

\* Note: Records are to be kept for eight years, except routine emission records that are to be kept for one year.

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 application template used to apply for the certificate of conformity. However, EPA asks that only the new or changed information be provided on the running change template.

**Table C**  
**For Running Changes (Amendments to the Application)**

<b>Information Description</b>	<b>Basis for Requirement</b>
Notification of changes made to the application and request to amend the application	91.122(a)
A full description of the engine to be added, or change to be made	91.122(b)(1)
Manufacturer's proposed test engine	91.122(b)(2)
Engineering evaluations or reasons why the original test engine is/is not still appropriate	91.122(b)(3)
Upon EPA request, test data on the engine changed or added	91.122(c)
Supporting documentation, test data and engineering evaluations as appropriate to demonstrate that all affected engines will still meet applicable emission standards	91.122(e)(1)

## B. Average, Banking and Trading:

**Table D**  
**Record-keeping Requirements under the Average, Banking, and Trading Provisions**

Information Description	Basis for Requirement
EPA engine family	91.209(a)(1)
Engine identification number	91.209(a)(2)
Engine build date and model year	91.209(a)(3)
Power rating	91.209(a)(4)
Purchaser and destination	91.209(a)(5)
Assembly plant	91.209(a)(6)
Family identification code	91.209(b)(1)
Family emission Limit	91.209(b)(2)
Power rating	91.209(b)(3)
Projected sales volume for the model year	91.209(b)(4)
Actual sales volume where FEL changes during year	91.209(b)(5)
<b>For families participating in trading, the following records must be kept quarterly:</b>	
Actual quarterly and cumulative applicable production/sales volume	91.209(c)(2)
Value required to calculate credits	91.209(c)(3)
Resulting type and number of credits generated/required	91.209(c)(4)
How and where credit surpluses are dispersed	91.209(c)(5)
How and through what means credit deficits are met	91.209(c)(6)

\* Note: Records are to be kept for eight years per 91.209(d).

**Table E**  
**End-of-Year and Final Reports**

Information Description	Basis for Requirement
For each family: actual sales volume, values required to calculate credits, and number of credits generated/required. Also: where credit surpluses were dispersed and how credit deficits were met. Copies related to credit trading. Calculation of credit balances.	91.210(a)

**Table F  
Hearings**

Information Description	Basis for Requirement
If the manufacturer requests a hearing on the Administrator's denial or revocation of a certificate of conformity, then 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 objections.	91.124 (b), 91.211

C. Production Line Testing

Each calendar quarter, manufacturers must conduct testing on a sample {not to exceed the lesser of one percent of production or 30 engines, per engine family [91.506(b)(8)]} of engines taken directly from the assembly line. Per 91.509(e), within 30 days of the end of each quarter, manufacturers must report the information listed below. If engines fail to comply with standards, manufacturers must submit failed engine reports.

**Table G  
PLT Program**

Information Description	Basis for Requirement
Location and description of test facility	91.509(e)(1)
Total production and sample size	91.509(e)(2)
FEL	91.509(e)(3)
Sample selection description	91.509(e)(4)
Description of test engines	91.509(e)(5)
For each test:	
A description of test engine including configuration & engine family, year, make, and build date, engine identification number, number of hours of service accumulation	91.509(e)(6)(i)
Location and description of service accumulation	91.509(e)(6)(ii)
Test number, date, test procedure, initial (before and after rounding) and final test results for all tests,	91.509(e)(6)(iii)
Description of any adjustment, modification, repair, preparation, maintenance, and/or testing performed which will not be performed on all other production engines	91.509(e)(6)(iv)
CumSum analysis of test results	91.509(e)(6)(v)
Other information requested by EPA	91.509(e)(6)(vi)

(cont.)

**Table G**  
**PLT Program (cont.)**

<b>Information Description</b>	<b>Basis for Requirement</b>
For each failed engine, a description of the remedy and test results for all retests	91.509(e)(7)
Date of the end of the model year production for each engine family, and	91.509(e)(8)
A signed statement and endorsement	91.509(e)(9)

EPA may enter and inspect facilities where PLT testing is conducted to ensure that engines are tested according to EPA regulations (91.505). Manufacturers are required to furnish records and provide reasonable assistance to EPA officials during such audits.

**Table H**  
**PLT Program Recordkeeping Requirements**

<b>Information Description</b>	<b>Basis for Requirement</b>
Description of test equipment	91.504(a)(1)
Records pertaining to each test:	91.504(a)(2)
Date, time, and location of each test	91.504(a)(2)(i)
Number of hours of service accumulation before and after testing	91.504(a)(2)(ii)
Names of supervisory personnel involved	91.504(a)(2)(iii)
Record and description of adjustments, repair, preparation or modification performed	91.504(a)(2)(iv)
If applicable, dates of shipping and the date the engine was received at the test facility	91.504(a)(2)(v)
Complete records of all emission tests	91.504(a)(2)(vi)
Brief descriptions of any significant events	91.504(a)(2)(vii)

\* Note: Per 91.504(b), manufacturers are required to maintain records for one year.

#### D. In-use Testing Program

Under the In-use Testing Program, manufacturers must test, each year, a sample of used engines from one of their certified engine families previously chosen by EPA. EPA may request a manufacturer to test up to 25 percent of the number of engines

families certified by each manufacturer. Engine manufacturers must test a minimum of four engines per engine family provided that no engine fails. EPA allows a minimum of two engines to be tested if the manufacturer only makes 2,000 engines or less for that model year or if the engine family consists of 500 engines or less. If the engine family was certified using carry-over data and EPA has not order a recall for the previous family, the manufacturer can test only one engine. In-use testing regulations are found at Part 91, Subpart I.

For each failing engine, two more engines need to be tested until a total of ten engines is reached. If an engine family fails in-use testing, EPA may order the manufacturer to recall that engine family (91.804(e)). Recall regulations are covered under a different ICR.

Within three months after testing is completed, manufacturers must electronically submit all information generated from the in-use testing program (91.805(a)). For each engine tested, the following information is required:

**Table I**  
**In-use Testing Program**

Information Description	Basis for Requirement
Engine Family	91.805(a)(1), 91.805(a)(1)
Model	91.805(a)(2), 91.805(a)(2)
Engine Serial Number	91.805(a)(3), 91.805(a)(3)
Date of Manufacturer	91.805(a)(4)
Estimated hours of use	91.805(a)(5)
Date and time of each test attempted	91.805(a)(6)
Results (if any) of each test attempted	91.805(a)(7)
Results of all emission testing	91.805(a)(8)
Summary of all maintenance and/or adjustments performed	91.805(a)(9)
Summary of all modifications and/or repairs	91.805(a)(10)
Determinations of noncompliance	91.805(a)(11)

Manufacturers must maintain the following in-use testing records for eight years, with the exception of routine emission test data which can be maintain for only one year. Records can be kept on any format and in any media, provided they are promptly supplied to EPA upon request in English and in a well organized manner (91.121(c)).

**Table J**  
**In-use Testing Program Recordkeeping Requirements**

Information Description	Basis for Requirement
Documents generated during the procurement process	91.804(a)(2)
Documentation of all maintenance and adjustments	91.804(b)
Routine emission test data	91.121(b)
Standard test documentation	91.121(b)

(ii) Respondent Activities

The following are a manufacturer's activities associated with certifying a marine SI engine family. Averaging, Banking, & Trading is a required part of the certification process for spark-ignition marine engines.

- Review regulations and guidance;
- Develop engine family groups;
- Test engines for compliance;
- Develop deterioration factors;
- Gather production volume projections for all engine families;
- Analyze data to determine compliance;
- Compile all information, prepare and submit the application;
- Prepare, support & submit running changes;
- Collect actual production volumes and engine sale;
- Develop and submit end-of-year reports;
- Develop and submit final reports; and
- Maintain records, and submit them upon request.

Activities manufacturers need to carry out to comply with PLT requirements are:

- 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;
- Test engines;
- Enter data and analyze it;
- Prepare and submit reports;
- Keep records; and
- Other activities such as test equipment calibration, engine repair if needed, etc.

Activities associated with in-use testing are:

- Read instructions and regulations;
- Train personnel;
- Procure engines;
- Maintain engines;
- Test engines;
- Enter data and analyze it;
- Prepare and submit reports; and
- Keep records.

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

5(a) **EPA Activities**

The following are EPA's activities associated with certifying an engine family:

- Answer respondent questions;
- Review the regulations and guidance;
- Enter applications into database;
- Review applications;
- Review running changes & corrections;
- Issue appropriate certificates;
- Store data;
- Answer questions from the public;
- Review end-of-year report;
- Review final report; and
- Enter data from reports into database.

Activities related to AB&T involve:

- Reviewing requirements and providing guidance;
- Entering the data into the database;
- Receiving 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.

To ensure, through the PLT Program, that mass-produced marine SI engines do comply with emission standards, EPA must:



- Answer questions from manufacturers and the public;
- Review submissions for format and completeness;
- Input data into the database;
- Analyze and compare results to standards and FELs;
- Request and review additional information as needed;
- Take any appropriate enforcement actions;
- Keep records of the information submitted and EPA's actions and determinations;
- 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; and
- Analyze and manage requests for confidentiality.

EPA performs the following activities associated with the Marine in-use test program:

- Evaluate engine technologies and/or plan to target in-use testing requirements to address emission durability concerns;
- Review certification information and prior in-use data (if applicable) to identify engines for testing;
- Inform manufacturers of the need to conduct in-use testing on a family and / or configurations;
- Answer manufacturers' questions;
- Review submissions to verify they are in the proper format and complete, in accordance with 91.805;
- Enter results (which are submitted in electronic format) into an information management system (IMS) which links test data and other relevant information to certification information for tracking engine family emission performance;
- Analyze, compare and file information submitted by manufacturers in their Quarterly Report on Emissions Testing report;
- Periodically EPA may request additional information or documentation regarding an engines procurement, use or maintenance. This will typically only be as spot checks to verify that manufacturers are complying with regulations. This information will be filed and retained by EPA;
- Periodically EPA may perform maintenance or make enhancements to the IMS described above; and
- Analyze requests for confidentiality.

5(b) Collection Methodology and Management

EPA currently makes extensive use of electronic media in gathering and evaluating information from small SI engine manufacturers. Manufacturers submit Certification, AB&T, PLT and In-use data in electronic formats. EPA is actually developing new Excel-based templates for manufacturers to submit their compliance reports.

Once the data is received, the information is entered into a database and reviewed for completeness. If the manufacturer chooses to make hard copy submittals, then EPA manually enters the information into the database. The certification reviewer analyses the information to ensure compliance with the CAA and applicable regulations.

The public can access non-confidential portions of the certification applications and test data by contacting HDNEG or through the Engine Certification Information Center at <http://www.epa.gov/otaq/certdata.htm>.

#### 5(c) Small Entity Flexibility

Currently, four of the 12 marine SI engine manufacturers who submit applications for certification may be small entities. However, there are a number of flexibilities that reduce the burden on smaller volume OB/PWC engine manufacturers, and smaller volume families, such as: corporate average standard, nine-year phase-in, multi-year averaging, use of surrogate data for certification, and exemption from production line testing and in-use testing, emission defect reporting, reporting of voluntary emission recalls, and warranty provisions.

The information being requested from spark-ignition marine engine manufacturers is considered to be the minimum needed to effectively conduct and maintain integrity of the required certification and enforcement programs. Further measures to simplify reporting for small businesses do not appear prudent or necessary.

#### 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, and a certificate of conformity must be obtained each year before the start of production (or importation) of each engine family. Taking these two considerations into account, manufacturers are encouraged to submit their applications at their earliest convenience. Running change and correction applications are submitted by manufacturers as the need occurs.

PLT data is submitted quarterly, as manufacturers update their internal records. In-use testing information is submitted once per model year within 90 days after testing is complete.

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

6(a) Estimating Respondent Burden

Burden estimates were taken from the previous ICR and adjusted to reflect experience gained by EPA and comments from fewer than 10 respondents consulted by EPA. Refer to Tables 1 through 3 in the Appendix for details.

6(b) Estimating Respondent Costs

## (i) Estimating Labor Costs

To estimate labor costs, EPA used the Bureau of Labor Statistics' National Industry-specific Occupational Wage Estimates (May 2006) for the Engine and Turbines Industry (SIC 351) and increased by a factor of 2.1 to account for benefits and overhead (NAICS 336000 - Transportation Equipment Manufacturing). The specific rates used are listed in Table 4, below. Rates are measured on a mean hourly basis.

**Table 4**  
**Labor Costs Estimates**

<b>Occupation</b>	<b>SOC Code Number</b>	<b>Mean Hourly Rate (BLS)</b>	<b>110%</b>
Mechanical Engineers	17-2141	\$34.49	\$72.43
Engineering Managers	11-9041	\$52.52	\$110.29
Lawyers	23-1011	\$54.65	\$114.77
Secretaries, Except Legal, Medical and Executive	43-6014	\$14.25	\$29.93
Mechanical Engineering Technicians	17-3027	\$24.11	\$50.63
Engine and Other Machine Assemblers	51-2031	\$19.53	\$41.01
Maintenance Workers, Machinery	49-9043	\$18.72	\$39.31
Truck Drivers, Heavy and Tractor-Trailer	53-3032	\$20.41	\$42.86
Motorboat Operator	53-3099	\$18.81	\$39.50

## (ii) Estimating Capital and Operations and Maintenance Costs

Operation and Maintenance costs (O&M Costs) associated with this information collection include diskettes, photocopying, postage and other shipping expenses, calls, maintenance of emission laboratories (for those manufacturers that own testing cells), and testing costs (for those manufacturers that contract testing facilities). Diskettes are used by manufacturers to submit their electronic applications and to keep records.

Capital costs (associated with building emission testing facilities) were incurred by manufacturers when the marine SI engine industry became regulated for the first time. Therefore, capital costs are excluded from this ICR. EPA does not expect any new marine SI engine manufacturers to enter the US market in the next three years and build its own emission testing laboratories. Other emission testing expenses are included as O&M costs as explained above.

(iii) Capital/Start

There are no capital or start-up 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) above for details.)

6(c) Estimating Agency Burden

Tables 5 through 7 in the Appendix explain EPA's overall burden associated with the programs contained in this information collection.

Table 8, below, summarizes EPA's labor costs associated with this information collection. These costs are based on 2007 hourly wage rates obtained from the Office of Personnel Management and adjusted by a factor of 1.6 to account for benefits and overhead.

**Table 8**  
**Agency Labor Costs**

<b>Occupation</b>	<b>Hourly Rate</b>	<b>160%</b>
Engineer (GS-13/6)	\$44.39	\$71.02
Lawyers (GS-14/5)	\$50.95	\$81.52
Managers (GS-15)	\$52.88	\$84.61
SES-1	\$89.42	\$143.08

The salary of a senior from the Senior Environmental Employment (SEE) Program for clerical support is \$13.81 per hour plus approximately 150% increase for benefits, for a total of \$20.72. EPA also pays a \$2,151.83 administrative fee to Senior Services America, Inc., the organization from which our SEE Employees come. This data was obtained from HDNEG's financial officer. To calculate how much of that fee

corresponds to this collection, the fee was divided by the number of hours the senior spends in this program and added to the hourly salary rate for a total of \$24.38.

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

In model year 2007, EPA received 111 certification applications from 12 marine SI engine manufacturers. The number of marine SI applications has decreased significantly since the last renewal. Most of the certification applications received (99 out of 111) were "carry-over" applications (see section 4(b) for details). Therefore, only 12 applications represented new engine families, an average of one new engine family per respondent. Thirty running changes are submitted on average by 6 manufacturers.

PLT requires manufacturers to test a sample of engines from each engine family. The size of the sample is determined by a formula found at 90.506. The maximum number of engines manufacturers need to test (per engine family per model year) is the lesser of 30 engines or one percent of the projected annual production [91.506(b)(8)]. However, according to PLT data submitted by manufacturers, an average of seven tests are conducted per engine family per model year. For many small families, though, the maximum testing burden is of just one test per model year (those with an annual projected production of less than 3,000). The burden for carry over engine families is less than that for new engine families.

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. (For manufacturers with three or less engine families, one engine family can be selected, per 91.(a)(1).) In 2007, EPA ordered testing of 17 engine families from 9 manufacturers, for an average of two engine families per respondent. A minimum of four in-use engines need to be tested, provided no engine fails.

Tables 1 through 3 in Appendix 1 detail the burden hours and associated costs for this collection request.

6(e) Bottom Line Burden Hours and Cost Tables

## (i) Respondent Tally

**Table 9**  
**Total Estimated Respondent Burden and Cost Summary**

<b>Program</b>	<b>Number of Respondents</b>	<b>Number of Activities</b>	<b>Total Hours Per Year</b>	<b>Total Labor Cost Per Year</b>	<b>Total Annual Capital Costs</b>	<b>Total Annual O&amp;M Costs</b>	<b>Total Costs</b>
Cert & AB&T	12	14	5,067	\$328,617	0	\$144,483	\$473,100
PLT	12	12	6,272	\$386,212	0	\$37,848	\$424,060
In-use Testing	9	11	15,207	\$674,792	0	\$36,892	\$711,684
<b>Total</b>	<b>12</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## (ii) Agency Tally

**Table 10**  
**Total Estimated Agency Burden and Cost Summary**

<b>Program</b>	<b>Number of Respondents</b>	<b>Number of Activities</b>	<b>Total Hours Per Year</b>	<b>Total Labor Cost Per Year</b>	<b>Total Annual Capital Costs</b>	<b>Total Annual O&amp;M Costs</b>	<b>Total Costs</b>
Cert & AB&T	12	11	2,124	\$146,817	0	\$2,772	\$149,589
PLT	12	10	3,477	\$247,975	0	\$295	\$248,270
In-use Testing	12	10	193	\$14,164	0	\$98	\$14,262
<b>Total</b>	<b>12</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

6(f) Reasons for change in burden

Despite the fact that the estimated burden per response remains approximately the same, there is a reduction in total burden from the previous ICR (from 40,293 hours to 26,546 hours). This change is due to a reduction in the amount of estimated responses (from a total of 158 engine families in 2004 to 111 in 2007; 89% of which are carry-overs). Under the previous ICR, manufacturers could request a waiver from most compliance requirements (PLT, In-use, etc.) for engine families with technology that was

already in existence as of 1997 if they agreed to completely phase these families out by 2005. Since the phase out date already passed, manufacturers are no longer producing those engine families.

6(g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information is about 154 hours per response, 2,212 hours per respondent. 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 ICR under Docket ID Number EPA-HQ-OAR-2007-0904, 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, 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. An electronic version of the public docket is available at [www.regulations.gov](http://www.regulations.gov). This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OAR-2007-0904 and OMB Control Number 2060-0321 in any correspondence.