

INFORMATION COLLECTION REQUEST

SUPPORTING STATEMENT

Information Requirements for New Marine Compression Ignition Engines at or Above 30 Liters
per Cylinder

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

Information Collection Request

1(a). Title

Information Requirements for New Marine Compression Ignition Engines at or Above 30 Liters per Cylinder

ICR Tracking Number: 2345.01

1(b). Short Characterization

The Clean Air Act authorizes EPA to adopt emission standards for new nonroad engines. We need information to verify that manufacturers comply with emission standards—before production begins, during production, and after units have been placed into service. In the rulemaking we require manufacturers to generate or retain information to demonstrate that engines comply with emission standards.

Manufacturers generally send us the data they collected and keep these records and other pertinent information. We may request to see any of these records.

We and the regulated companies will use the data exclusively to ensure compliance with emission standards. Information such as engine family, total numbers of engines built, and emission rates for specific pollutants, are examples of what we require.

2. Need For and Use of the Collection

2(a). Need/Authority for the Collection

The data we require in this ICR is necessary to comply with Title II of the Clean Air Act, as amended in 1990. The Act directs us to adopt regulations for nonroad engines if we determine those engines contribute significantly to air pollution in the U.S. Now that we have made this determination, the Act directs us to set emission standards for any category of nonroad engines that contributes to air quality nonattainment in two or more areas in the U.S. We can only meet the requirements of the Act by collecting data from the regulated industry. Also, we will only have an effective program if we know that these engines maintain their certified emission level throughout their operating lives.

2(b). Use/Users of the Data

We will oversee the certification process and maintain the program database. We will use the data items to verify compliance with the following requirements associated with the new emission standards.

- determine whether or not a prototype engine may adequately represent an engine family.
- ensure compliance of production-line engines.
- issue a recall to correct a noncompliant family of engines.

- confirm actual emission benefits gained by the program.
- ensure proper maintenance and setting of physically adjustable parameters.
- aid in the production projections to randomly select the engines which are to undergo testing.
- determine whether a prototype or freshly manufactured engine should be issued a certificate of conformity.
- ensure that durability of emission controls is consistent with the manufacturer's stated useful life.
- ensure control of emissions across the range of engine operation expected in the normal course of its lifetime

3. Nonduplication, Consultations, and other Collection Criteria

3(a) Nonduplication

Emissions from the engines subject to the new emission standards have been largely unregulated in the United States. Moreover, state and local governments are preempted from adopting emission standards for many of the engines covered by this rulemaking. For this reason, the information requested under this ICR is not available from other sources.

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

We are publishing a proposed rulemaking in the *Federal Register* in 2009 regarding emission standards for Category 3 marine diesel engines. This notice for the proposed rule will include invitations to comment on the ICR.

3(d) Effects of Less Frequent Collection

Annual reporting for certifying engine families is necessary to align with the regulatory requirement to certify engine families every year. Quarterly reporting of test results from production-line testing is necessary to allow adequate response to any problem that may arise.

3(e) General Guidelines

This ICR complies with the general guidelines, except for the requirement to retain records for a five-year period, as described in 4(b)(ii) below.

3(f) Confidentiality

We hold information from the engine manufacturers as confidential until the associated engines are available for purchase. Manufacturers may submit proprietary information, consisting generally of sales projections and certain sensitive technical descriptions. We grant confidentiality in accordance with the Freedom of Information Act, EPA regulations at 40 CFR part 2, subpart B, and class determinations issued by our Office of General Council.

3(g) Sensitive Questions

We do not ask sensitive questions. This collection complies with The Privacy Act and OMB Circular A-108.

4. Respondents and Information Requested

4(a) Respondents/NAICS and SIC Codes

This action will affect companies that manufacture, sell, or import into the United States new marine compression-ignition engines with per cylinder displacement at or above 30 liters for use on vessels flagged or registered in the United States; companies and persons that make vessels that will be flagged or registered in the United States and that use such engines; and the owners or operators of such U.S. vessels. Additionally, this action may affect companies and persons that rebuild or maintain these engines. Finally, this action may also affect those that manufacture, import, distribute, sell, and dispense fuel for use by Category 3 marine vessels. Affected categories and entities include the following:

Industry.....	333618.....	Manufacturers of new marine diesel engines
Industry.....	336611.....	Manufacturers of marine vessels
Industry.....	811310.....	Engine repair and maintenance
Industry.....	483.....	Water transportation, freight and passenger
Industry.....	324110.....	Petroleum Refineries
Industry.....	424710, 424720...	Petroleum Bulk Stations and Terminals; Petroleum and Petroleum Products Wholesalers.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action.

4(b) Respondents and Information Requested

The burden for certification testing is generally based on conducting two engine tests for each engine family. The manufacturer's application for certification involves an extensive effort the first year, followed by relatively little effort in subsequent years. We estimate that manufacturers will conduct new certification testing every five years. In addition to testing, manufacturers must prepare the application for certification and maintain appropriate records. Rebuilders, including operators of marine vessels with Category 3 engines, must keep records as needed to show that rebuilt engines continue to meet emission standards, consistent with the manufacturer's original design. In addition, owners and operators of marine vessels with Category 3 engines must record information about their location when rebuilding engines or making other adjustments and send minimal annual notification to EPA to show that engine maintenance and adjustments have not caused engines to be noncompliant.

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

5 (a) Agency Activities

Our certification and tracking process involves reviewing applications and emission data from engine and vessel manufacturers. From this data, we issue certificates of conformity, and may confirm that production and in-use engines continue to comply with standards. We may also select families to be tested in a given production year and require additional testing, based on an analysis of the submitted data.

5 (b) Collection Methodology and Management

We currently use computers extensively to collect information from vessel manufacturers. Based on this approach as a model, much routine information (test results, projections) can be electronically transmitted directly from the manufacturers to our computer database. We expect to publish this information on our website once certified engines go into production (www.epa.gov/otaq/).

5 (c) Small-Entity Flexibility

We have a variety of provisions to ease the compliance burden on small businesses. Small-volume manufacturers can generally combine their products into a single engine family or use design-based certification to reduce testing efforts. Testing rates for the production-line testing program decrease or are waived for small-volume manufacturers.

5(d) Collection Schedule

The principal reporting requirements are associated with certification to the emission standards, which begin to apply at the end of the preceding year at the earliest. Annual reporting is based on the beginning of the model year, which can vary for each manufacturer. Quarterly reporting of production-line testing results begins when certified engines go into production.

6. Estimating Burden and Cost of the Collection

We estimate burden and cost estimates separately for two groups of companies. First, engine manufacturers comply with emission standards by submitting an application for certification, which obligates them to do a certain amount of testing to show they comply with the standards. Second, companies that rebuild the regulated engines need to keep records of their maintenance practices, consistent with their normal business practice. The following discussion develops burden and cost estimates for the first three years of the program.

6 (a) Estimating Respondent Burden

The estimates of respondent burden utilizes data from the affected industries or commercially available databases. Burden hours per engine family are based upon established hour amounts for engine families, as published in the “Application for Motor Vehicle Emission Certification and Fuel Economy Labeling” (OMB No. 2060-0104).

The burden for certification testing is generally based on conducting two engine tests for each engine family, then using that test data for several years. The manufacturer's application for certification involves an extensive effort the first year, followed by relatively little effort in subsequent years. We estimate that manufacturers will conduct new certification testing every five years; the costs have been estimated on an annual average basis.

In addition to testing, manufacturers must prepare the application for certification and maintain appropriate records. We have estimated the cost of these combined activities, which include engineering and clerical effort, to be about \$20,000 for Category 3 marine diesel per certification cycle. As with the testing costs, we are presenting annual average costs.

The burden for production-line testing is based on an industry-wide calculation. Rebuilders, including operators of marine vessels with Category 3 engines, must keep records as needed to show that rebuilt engines continue to meet emission standards, consistent with the manufacturer's original design. In addition, owners and operators of marine vessels with Category 3 engines must record information about their location when rebuilding engines or making other adjustments and send minimal annual notification to EPA to show that engine maintenance and adjustments have not caused engines to be noncompliant.

These burden estimates apply equally whether the manufacturer conducts the required activities, or if the manufacturer hires a third party for some of these activities.

6 (b) Estimating Respondent Costs

(i) Estimating Labor Costs

Labor rates on a per-hour basis, are taken from the Bureau of Labor Statistics web site at <http://stats.bls.gov/news.release/ecec.t05.htm> (accessed February 23, 2009). Technical labor is \$45.90/hr, managerial labor is \$72.35/hr, clerical labor is \$32.16/hr. Labor rates were multiplied by 1.5 to account for fringe benefits and other overhead expenses.

(ii) Estimating Operations and Maintenance Costs

Operation and maintenance costs include expenses related to engine testing. Costs are for laboratory time, the use of test equipment, engine parts, fuel and other supplies, and fabrication of test tools and fixtures. Direct labor costs and operations and maintenance costs combine for the total test costs described above.

(iii) Capital/Start-up Costs

Companies required to conduct testing generally either have testing facilities or are expected to conduct testing at a contractor's laboratory. Thus, no capital or startup costs are anticipated for purchasing emission testing equipment.

(iv) Annualizing Capital Costs

With no estimated capital or start-up costs, there is no need to annualize these costs.

6 (c) Estimating Agency Burden and Cost

Our Engine Programs Compliance Group administers emission certification programs. This group has approximately 17 full-time employees. We project 25 hours per week of staff time (at \$40 per hour, loaded) to manage engine compliance programs related to new emission standards. This comes to approximately 1,250 hours or \$50,000 per year to oversee the requirements of the final rule.

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

The following tables shows the labor and other costs associated with meeting the new requirements for each engine family. This includes certification costs, plus the cost of any additional testing. Per-family costs are multiplied by the number of engine families and added to estimated capital costs (if any) to arrive at an estimated total cost.

In addition, we estimate that 200 companies would be affected by new requirements to keep records related to rebuilding, maintaining, or adjusting engines (see Table 6); these companies must keep records of their business practices, but they don't need to design or certify engines or measure emissions. These estimates are based on the projected costs for each company to meet the requirements of the rule.

Table 5
Average Annual Respondent Burden and Cost—Category 3 Marine Diesel Engines

Information Collection Activity	Average annual burden and cost per family						# of Families	Capital & Startup cost	Total Hours and Costs	
	Mgr. @ \$72/hr	Tech. @ \$46/hr	Cler. @ \$32/hr	Hours per family	Labor cost per family	O&M Cost			Total Hours/yr	Total Cost/yr
Cert. application	3	80	7	90	\$4,114	\$0	12	\$0	1,080	\$49,370
Recordkeeping	0.2	2.2	2.6	5.0	\$199	\$0	12	\$0	60	\$2,389
Cert./durability testing	0	56	0	56	\$2,570	\$5,430	12	\$0	672	\$96,000
Defect reporting	1	2	2	5	\$228	\$0	12	\$0	60	\$2,742
Subtotal				Total O&M cost = \$65,155			—	\$0	1,872	\$147,759

Table 6
Annual Respondent Burden and Cost— Rebuilders

Information Collection Activity	Mgr. @ \$72/hr	Tech. @ \$46/hr	Cler. @ \$32/hr	Company hours/year	Labor cost per year	O&M Cost	Capital cost	Total Hours and Costs		
								# of companies	Total Hours/yr	Total Cost/yr
Recordkeeping		2	4	6	\$220	\$0	\$0	200	1,200	\$44,000

6 (e) Bottom-Line Burden Hours and Cost Tables

(i) Respondent Tally

Bottom-line burden and cost for the first three years of the rulemaking are shown in Table 7. These estimated costs include startup expenses (for example, the purchase of emission sampling equipment and new recordkeeping software).

Table 7
Summary of Bottom-line Burden Hours and Cost

Affected Entities	Number of Manufacturers	Industry Totals			
		Annualized Capital Costs	Total O&M Costs per Year	Total Hours per Year	Total Costs per Year
Category 3 marine diesel engine manufacturers	12	\$0	\$65,155	1,872	\$147,759
Engine rebuilders	200	\$0	\$0	1,200	\$44,000
Total	212	\$0	\$65,155	3,072	\$191,759

(ii) Agency Tally

Our estimated burden is approximately 1,250 hours or per year (or \$50,000) to oversee the requirements of the final rule, as described in Section 6(c).

6 (f) Reason for Change in Burden

We have adopted emission standards for Category 3 marine diesel engines, which were previously unregulated. The previous collection was limited to Category 1 and Category 2 commercial marine diesel engines (up to 30 liters per cylinder), industrial spark-ignition engines, and recreational marine diesel engines.

6 (g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 23 hours per response.

Burden means the total time for, 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-2007-0121, which is available for online viewing at www.regulations.gov, or in person viewing at the Air and Radiation Docket 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 is (202) 566-1742. An electronic version of the public docket is available at www.regulations.gov. This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OAR-2007-0121 and OMB Control Number 2060-NEW in any correspondence.