

INFORMATION COLLECTION REQUEST

SUPPORTING STATEMENT

Information Requirements for Nonroad Small SI Engines and Equipment

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

Control of Emissions from Nonroad Spark-Ignition Engines and Equipment

ICR Tracking Number: 2251.02

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, and during production. 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.

This ICR is submitted as a new submittal even though existing requirements exist. The revisions generally include new standards, testing, and reporting requirements for nonroad spark ignition engines.

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 or fuel system component may adequately represent an engine family.
- Ensure compliance of production-line engines.
- Issue a recall to correct a noncompliant family of engines or equipment.
- 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 and fuel system components which are to undergo testing.
- Determine whether a prototype or freshly manufactured engine or fuel system component 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.
- Manage the importation of engines and equipment that meet requirements.

3. Nonduplication, Consultations, and other Collection Criteria

3(a). Nonduplication

State and local governments are preempted from adopting emission standards for many of the engines covered by this rulemaking. The exception to this is California which has set its own exhaust and evaporative emissions standards for Small SI. Where possible, we will accept information that has been generated by manufacturers that certify in California. In many cases, the engine and fuel system manufacturers do not certify in California. In those cases, the information requested under this ICR is not available from other sources.

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

The NPRM was published in 2006 and no comments were received. The final rulemaking for nonroad Small SI engines will be published in the *Federal Register* regarding emission standards for nonroad Small SI and Marine SI engines.

3(c) Consultations

For the NPRM, we met with companies that will be subject to the new emission standards. These contacts are summarized in Tables 1 and 2. For the FRM, we continued discussions on issues raised in the comment period for the NPRM and on other issues raised in the time prior to the FRM.

Industry and other interested parties commented on the NPRM for this rulemaking. A number of meetings have been held with various industries covered by this rulemaking, as part of the rulemaking process, to address issues raised in their comments.

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 up to eight years, 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

The respondents are generally involved in the industries shown in Table 3.

Table 3
NAICS and SIC Codes for Respondent Categories

Respondent Categories	NAICS Codes ^a	SIC Codes ^b
Other Engine Equipment Manufacturing	333618	3519
All Other Transportation Equipment Manufacturing	336999	3799
Hand and Edge Tool Manufacturing	332212	--
Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing	333112	3524
Motor and Generator Manufacturing	335312	3621

^aNorth American Industry Classification System (NAICS)

^bStandard Industrial Classification (SIC) system code.

4(b) Respondents and Information Requested

(i) Data Items

Manufacturers must send us an application for certification, including emission data and other descriptive information. In addition, manufacturers create engine labels and send us information in some cases regarding engines that are exempt from emission standards or other specific requirements.

(ii). Respondent Activities

Companies retain records as hard copy and may also reduce the information to computer disks, etc. We require very little submission of information to process applications for certification. This reduces the resource burden, both for the industry and for us. However, because we do not have the information on file, we depend on manufacturers to retain the records to allow us to verify compliance throughout the useful life of the engines. Eight years is sufficient time for this information for most engines. Any investigation of in-use engines generally does not start until three or more years after the manufacturer completes the application for certification.

The certification information includes records related to the deterioration of an engine's emission controls with age. Some engine manufacturers also participate in emission-credit programs, in which they produce some engines with emissions above the standard and others with emissions below the standard. This is an optional program, so we don't include specific estimates related to any additional reporting or recordkeeping for generating or using emission credits.

Engine manufacturers must also report to us if they learn that a substantial number of their engines have emission-related defects. This is normally not a requirement to collect information, but if manufacturers learn that there is or might be a substantial number of emission-related defects, then they must send us information describing the defects.

Many companies import engines. First, some companies import engines that are not subject to emission standards; they must, however, fill out a form documenting the status of their engine and the reason for their exemption. Since most engines are now covered by emission standards, this has become much less common. It is now generally limited to engines used for stationary, underground mining, and hobby applications. Second, some companies import engines as Independent Commercial Importers, meaning that they do their own testing instead of importing engines that have been certified by engine manufacturers.

We have also adopted special provisions that allow equipment manufacturers to sell equipment with uncertified engines (or engines certified to less stringent standards). This involves a one-time notification before using this flexibility and annual reporting to document compliance with these provisions. This is a voluntary program that substantially reduces the costs of compliance for engine manufacturers, so we have not included specific costs related to these reporting or recordkeeping activities here.

Equipment manufacturers using Class II Small SI engines typically add on their own fuel tank and fuel lines on their equipment. Due to the fact that engine manufacturers do not typically supply these components, EPA has determined that equipment manufacturers must annually certify that they are using certified components for fuel tanks, fuel lines and that they have applied the running loss control. ABT related to fuel tank permeation is also available for equipment manufacturers in the circumstance that they desire to use conforming and non-conforming fuel tanks. Equipment manufacturers must submit this information if they are going to use this program. Equipment manufacturers will also perform running loss certification via design details in the certification literature. It is estimated that approximately 500 equipment manufacturers will submit paperwork one time a year to cover their products to which this requirement applies.

All reports, submissions, notifications, and requests for approval must be addressed to: Manager, Engine Programs Group (6405-J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., Washington, DC 20460. Respondents must submit information in an approved EPA information format.

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 equipment 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 engine 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

Exhaust Emissions: We have included provisions to ease the compliance burden on small businesses. For instance, some small manufacturers of small SI engines will be allowed the option to delay compliance with emission standards for two years. They also will be able to use an assigned deterioration factor which saves them the expense of service accumulation and additional testing to measure deteriorated emissions levels at the end of the regulatory useful life. Small engine manufacturers will also be exempt from Production Line Testing and can use a broader definition of “Engine Family” such that they have a smaller number of engine families for certification.

Small SI equipment manufacturers will have two extra years beyond the implementation dates for the Phase 3 standards to continue using Phase 2 engines in their Class II equipment. In addition, simplified engine certification for equipment manufacturers who must certify the engine due to redesign of the muffler system with catalyst.

Evaporative Emissions: Fuel tank manufacturers are largely small businesses. We have designed the evaporative emission control program to address the needs of these businesses including longer lead times for implementation of the fuel tank permeation standards. We have also included certification flexibility such as expanded emission family definitions, design-based certification options, limited compliance demonstration, and hardship provisions.

5(d) Collection Schedule

Table 4
Principal Reporting Start Dates

Category	Principal Reporting Start Date	Engine or Equipment Manufacturer
SI Evaporative - Handheld	2009	Engine/Equipment
SI Evaporative - NHH	2009	Engine/Equipment
SI Exhaust - Class I	2012	Engine
SI Exhaust - Class II	2011	Engine

The principal reporting requirements are associated with certification to the emission standards, which begin to apply in the time frames presented above, depending on the size/application of the engine. Reporting requirements therefore do not begin until 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 and for each engine family.

6. Estimating Burden and Cost of the Collection

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. 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 utilize 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).

Small SI Exhaust:

The burden for engine certification testing is generally based on dynamometer aging and four engine tests for each engine family, then using that test data for several years. The useful life sales weighted estimated average annual cost for full certification testing, including durability demonstration testing, is \$8,000 per engine test (combining labor and O&M expenses). 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 \$1500 per engine family per certification cycle. As with the testing costs, we are presenting annual average costs. Annual certification fees for engine manufacturers are included at \$800 per engine family.

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.

In addition, engine manufacturers are expected to upgrade some analyzers in order to perform emission testing in compliance with upgraded test procedures.

Equipment manufacturers utilizing Class II small SI engines will be required to annually certify that they are using certified components in the equipment they sell. It is estimated that each equipment manufacturer will submit one application to cover their entire product line. The cost will be \$241 for the application. This is an annual certification.

Evaporative

For the first year, we estimate fuel tank durability and certification testing to cost about \$15,000 per fuel tank manufacturer with the expectation that the manufacturers will use the same materials and permeation control strategy for all of their fuel tanks to reduce costs. Low permeation fuel lines are largely an established technology. We include a cost of \$1,000 per hose manufacturer to perform certification permeation testing on fuel lines. For the running loss, diffusion, and diurnal standards, we expect manufacturers to use the design-based certification options rather than testing. In addition, we estimate about \$10,000 for engineering and clerical work for the equipment manufacturers.

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.t12.htm> (accessed November 24, 2000). Technical labor is \$43/hr, engineer labor is \$65/hr, clerical labor is \$27.11/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. However, the rulemaking will incorporate new test procedure guidelines as outlined in 40 CFR 1065. This may require upgrade of analyzers and related equipment for small SI engine manufacturers. Costs are estimated at \$300,000 per test cell with two test cells per engine manufacturer for a total of \$600,000 each. Engine manufacturers of handheld engines will also need to upgrade related equipment for 40 CFR 1065 requirements and this is also estimated at \$600,000 per engine manufacturer. There are a large number of importers that do not have production facilities in the US and it is known that these engine manufacturers utilize commercial test labs for certification testing. One set of capital costs at \$600,000 is included for this testing method.

(iv) Annualizing Capital Costs

Calculating \$600,000 per handheld and nonhandheld engine manufacturer yields a total of \$19,800,000. Annualizing these capital costs yields a total of \$5,528,763 over 5 years.

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 show 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.

Table 5
Annual Respondent Burden and Cost—Nonroad Spark Ignition Engine Manufacturers

Information Collection Activity	Average annual burden and cost per family						# of Families	Annualized Capital & Startup cost	Total Hours and Costs	
	Mgr. @ \$65/hr	Tech. @ \$43/hr	Cler. @ \$27/hr	Hours per family	Labor cost per family	O&M Cost per family			Total Hours/yr	Total Cost/yr
Cert. application*	1	3	0.8	4.8	\$212	\$800	210	\$0	1,008	\$212,440
Recordkeeping	0.2	0.6	0.2	1	\$43	\$0	210	\$0	210	\$9,115
Cert./durability testing	7.5	112	1	121	\$4,698	\$3,373	210	\$5,528,763	25,356	\$7,223,763
Selective enforcement audits	0.02	0.48	0.05	0.55	\$23	\$73	2/industry	\$0	115	\$20,120
PLT	5	100	10	115	\$4,895	\$11,201	210	\$0	24,150	\$3,380,160
Defect reporting	2	10	10	22	\$818	\$0	21	\$0	462	\$17,168
Total Cost (per year) =					2,065,643	3,268,360	—	\$5,528,763	51,301	\$10,862,766

\$800 in O&M costs under cert application is the certification fee paid per engine family by the engine manufacturer.

Table 6
Annual Respondent Burden and Cost—Small SI Equipment and Fuel System Manufacturers

Information Collection Activity	Average annual burden and cost per family						# of Equip Mfr's	Annualized Capital & Startup cost	Total Hours and Costs	
	Mgr. @ \$65/hr	Tech. @ \$43/hr	Cler. @ \$27/hr	Hours per Equip Mfr	Labor cost per Equip Mfr	O&M Cost			Total Hours/yr	Total Cost/yr
Cert. application*	1	5	1	7	\$307	\$241	500	\$0	3,500	\$274,000
Recordkeeping	3	5	4	12	\$518	\$0	500	\$0	6,000	\$259,000
Total Cost (per year) =					\$412,500	\$120,500	--	\$0	9,500	\$533,000

*\$241 in O&M costs under cert application is the certification fee paid per equipment manufacturer.

Table 7
Annual Respondent Burden and Cost— Small SI Tank Manufacturers

Information Collection Activity	Average annual burden and cost per family						# of Equip Mfr's	Annualized Capital & Startup cost	Total Hours and Costs	
	Mgr. @ \$65/hr	Tech. @ \$43/hr	Cler. @ \$27/hr	Hours per Equip Mfr	Labor cost per Equip Mfr	O&M Cost			Total Hours/yr	Total Cost/yr
Cert. application*	1	3	0.8	4.8	\$216	\$241	32	\$0	216	\$14,611
Recordkeeping	0.2	0.6	0.2	1	\$44	\$0	32	\$0	44	\$1,414
Durability	1.2	60	1.2	62.4	\$2,690	\$0	32	\$0	2,690	\$86,093
Total Cost (per year) =					\$94,400	\$7,712	--	\$0	2,950	\$102,118

*\$241 in O&M costs under cert application is the certification fee paid per tank manufacturer.

Table 8
Annual Respondent Burden and Cost— Hose Manufacturers

Information Collection Activity	Average annual burden and cost per family						# of Equip Mfr's	Annualized Capital & Startup cost	Total Hours and Costs	
	Mgr. @ \$65/hr	Tech. @ \$43/hr	Cler. @ \$27/hr	Hours per Equip Mfr	Labor cost per Equip Mfr	O&M Cost			Total Hours/yr	Total Cost/yr
Cert. application*	0.6	0.4	0.4	1.4	\$67	\$241	21	\$0	101	\$6,468
Recordkeeping	0.2	0.6	0.2	1.0	\$44	\$0	21	\$0	21	\$928
Durability	0.2	0.6	0.2	1.0	\$44		21	\$0	1310	\$928
Total Cost (per year) =					\$3,255	\$5,061	--	\$0	1,432	\$8,324

*\$241 in O&M costs under cert application is the certification fee paid per hose manufacturer.

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 9. The table shows industry totals and average values for each respondent by category. These estimated costs include startup expenses (for example, the purchase of emission sampling equipment and new recordkeeping software).

**Table 9
Summary of Bottom-line Burden Hours and Cost Per Year**

Affected Entities	Number of Respondents	Number of Responses	Industry Totals					Average per Respondent	
			Annualized Capital Costs	Total Labor per Year	Total O&M Costs per Year	Total Hours per Year	Total Costs per Year	Total Hours per Year	Total Costs per Year
Small SI engine manufacturers	58	553*	\$5,528,763	\$2,065,643	\$3,268,306	51,301	\$10,862,766	885	\$187,289
Small SI evap (equip mfr)	500	500	\$0	\$412,500	\$120,500	9,500	\$533,000	19	\$1,800
Small SI evap (tank and hose mfr's)	53	53	\$0	\$97,670	\$12,773	4,382	\$110,443	68	\$2,084
Total	611	1106	\$5,528,763	\$2,575,813	\$3,401,579	65,183	\$11,506,209		

* includes annual certification, PLT, SEA, defect reporting plus an allowance for cert changes

(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 are finalizing emission standards for nonroad Small SI engines and equipment. Additional costs to the existing ICR are introduced through new evaporative emission standards for Small SI engines which affect tank manufacturers, hose manufacturers and some equipment manufacturers. This information collection request updates the estimated burden to reflect the additional effort required to meet the new standards and consolidates all the various recordkeeping and reporting items for these engines.

6 (g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 59 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. 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-2003-0012, which is available for online viewing at 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. 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-2003-0012 and OMB Control Number 2060-NEW in any correspondence.