

# U.S. EPA SMALL ENGINE CERTIFICATION GUIDANCE

February 1997

Engine Compliance Programs Group  
U.S. Environmental Protection Agency  
Mail Code 6403J  
Washington DC 20460

## Table of Contents

I.	Pre-application .....	1
A.	Obtaining a Manufacturer Code .....	1
B.	Contact Persons .....	1
C.	Model Year Preview .....	2
II.	Application .....	2
III.	Confidential Business Information .....	3
IV.	EPA Review of Application .....	3
V.	Certificate of Conformity .....	4
VI.	Amending an Application .....	4
VII.	Engine Family Name Carryover .....	5
VIII.	Data Carryover .....	5
IX.	Labeling .....	6
X.	Certification Fuel .....	7
XI.	Special and Alternative Test Procedures .....	7
Appendix A -	EPA Small Engine Certification Application Form and Instructions for Completing Application Form	
Appendix B -	Sample Statement of Compliance	
Appendix C -	Sample Cover Letter/Statement of Compliance to Accompany CARB Certification Submittals, CARB Attachments and Sample Additional Information Sheet	
Appendix D -	EPA Standardized Engine Family Names	
Appendix E -	Confidential Business Information in the Certification Application	
Appendix F -	Sample Small Engine Certificate of Conformity	
Appendix G -	Sample Engine Label Wording	

## Introduction

This document provides guidance for preparing, submitting, and revising certification applications for new nonroad spark-ignition engines at or below 19 kilowatts (small engines). The regulations that govern these engines are found at 40 CFR 90.

### I. Pre-application

#### A. Obtaining a Manufacturer Code : (one time only)

EPA requests that engine manufacturers notify EPA if they intend to manufacture small engines that will require EPA certification. Such notification does not obligate a manufacturer to certify engines.

If a manufacturer has not previously certified mobile source engines or vehicles with EPA, EPA will assign a manufacturer code, consisting of three letters or a combination of letter(s) and number(s), that will be a permanent code included in the manufacturer's engine family designations.<sup>1</sup>

Manufacturers who already have codes assigned from other EPA mobile source programs must still notify EPA to change their status to include small engines.

#### B. Contact Persons

The manufacturer should assign a primary contact person to work with EPA. All calls and mailings, including the certificate of conformity, will be directed to the manufacturer's primary contact unless otherwise directed by the manufacturer. EPA prefers the manufacturer's primary contact be in the United States.

EPA will assign a primary EPA contact person for each manufacturer. Information for the EPA primary contact person may be mailed to (note: express mail to this address will be returned to sender):

Anne Fredo  
Certification Team Leader  
Engine Compliance Programs Group  
U.S. Environmental Protection Agency  
401 M Street, S.W., Mail Code 6403-J  
Washington, DC 20460  
Phone: 202-233-9263  
FAX: 202-233-9596

---

<sup>1</sup> Engine Family naming prior to the 1998 MY utilized only two of the three characters of the manufacturers code.

For Express Mail Deliveries and Office Visits Only (regular U.S. mail delivered to this address will be returned to sender):

U.S. Environmental Protection Agency  
501 3rd St NW  
Washington, DC 20001  
Att.: Anne Fredo

### C. Model Year Preview

EPA requests that each manufacturer provide a preview of its certification plans each model year. The preview should include an estimate of the number of engine families to be certified, when production is planned to begin, and any unusual or special circumstances that may impact certification. A written submission in lieu of a meeting is acceptable.

The model year preview is the best time to notify EPA of any advance approvals that may be needed for variations from the regulations in test procedure, equipment or facilities. Failure to request advance approval in a timely manner is likely to result in a delay in certificate issuance, as discussed in Section IV of this guidance document.

## II. Application

A manufacturer can apply for a certificate of conformity in one of two ways. EPA prefers to receive the EPA format described herein for applications for a certificate of conformity. However, EPA will also accept a California Air Resources Board (CARB) style application (described below).

The EPA application for a certificate of conformity consists of two parts: 1) a completed small engine certification application form and 2) a signed statement of compliance with federal regulations. Samples of the application form and instructions are included in Appendix A. A sample statement of compliance is included in Appendix B. Upon completion, the application should be sent to the EPA certification team leader. Paper copies and electronic versions are equally acceptable, with the exception of a California-Style application, which is only acceptable in a paper version. Applications submitted electronically will undergo an expedited review process since the data entry step is eliminated.

EPA will also accept the following for federal certification: 1) the CARB certification review sheet and supplemental data sheet, 2) an additional information sheet, and 3) a signed statement of compliance. The application must contain all of the above listed documents, covering the same engine family (or the family identified as the carryover), to be considered a complete submission. Please

submit a cover letter including the statement of compliance. The Additional Information Sheet contains any additional information that is required on the standard EPA application format but which is missing from the California-style application. It is the manufacturer's responsibility to identify those items which are missing from the California-style submission and to supply that information on the Additional Information Sheet. An example of these submittals is included in Appendix C.

EPA will be using the standardized engine family naming convention in common with California and which is described in this document in Appendix D. The engine family name will appear on the engine information label and in the certificate of conformity. The engine family name should be used in all correspondence to EPA concerning that family. EPA requires that engines are certified annually and that the engine family name be changed every year regardless of carryover status.

Subpart B of 40 CFR 90 lists certification-related information that is required to be maintained by manufacturers. EPA is not specifying a particular format for the maintenance of that information although the format specified by CARB for submission of certification information is acceptable to EPA.

### III. Confidential Business Information

Please note that the manufacturer must clearly indicate any information included in the application that it wishes to claim as confidential and the time period for which confidentiality is to be maintained. The manufacturer should identify the specific answers that it claims as confidential by listing these answers (by question number) in the cover letter to the application or/and by stamping or marking the answers as confidential. If the manufacturer wishes this information to remain confidential until the engine family is introduced into commerce, the manufacturer must specifically make such a request, and must provide the anticipated introduction date. Examples of language for such a request are included in Appendices B and C. For paper submissions, EPA requests that the manufacturer submit an additional copy of its application in which all information claimed as confidential has been deleted. Please refer to Appendix E for more information on this topic.

### IV. EPA Review of Application

EPA will make every effort to review an application within 30 calendar days of receipt of a completed application. As part of the review, EPA will determine whether to request additional information (audit) and/or to perform confirmatory testing. Manufacturers should plan to keep the test engine in its certification configuration until the end of production.

If a review is delayed due to unforeseen circumstances, the EPA primary contact will call the manufacturer's primary contact. The EPA primary contact will also call with any questions that arise

during application review. If the EPA primary contact cannot reach the manufacturer's primary contact by telephone within a reasonable amount of time, the question will be submitted in writing.

#### V. Certificate of Conformity

A certificate of conformity will be issued for an engine family once EPA determines that the regulatory requirements are met. A sample is included in Appendix F. The effective date listed on the certificate is the date that engines covered by the certificate can be introduced into commerce. The certificate ceases to be valid at the end of the production period or December 31 of the calendar year for which the model year is named, whichever date is sooner. In most cases, the effective date of the certificate will be the date that the certificate is signed (the issue date). However, in cases in which a manufacturer requests unusually early certification, the effective date would be January 2 of the first calendar year in which the engine family can be introduced into commerce. For example, if a certificate for the 1997 Model Year is issued on October 31, 1995, the effective date of the certificate would be January 2, 1996.

The certificate of conformity is signed by the Director of the Engine Programs and Compliance Division who is delegated with signature authority by the EPA Administrator. A certificate is not valid without this signature. The original signed certificate will be sent to the manufacturer's primary contact at the address provided by the manufacturer in the application for that engine family.

#### VI. Amending an Application

After the application has been submitted, the manufacturer may need to amend it. EPA requires written submission of amendments (or 3 ½ " disk) in order to have documentation that production engines are built in accordance with the certificate and to monitor potential changes in emissions from production engines. Amendments which must be reported are those which involve a product line change that may have an effect on emissions and/or those which change information reported in the application. As described at 40 CFR 90.122, manufacturers may report amendments to an application either in advance or concurrently with making a change in production.

A manufacturer need only submit a brief description and revised application pages if an amendment merely corrects an error or omission in an application or changes a part number and does not involve a change which may affect emissions.

If the running change is expected to increase emissions or would change the test engine selection, the manufacturer is required to either submit test data showing compliance after incorporating the running change, or to submit an engineering evaluation as to why engines will

remain in compliance with all applicable standards and regulations. If the change is not expected to increase emissions, the manufacturer should submit the reason for that conclusion. EPA may require the manufacturer to perform tests on an engine representing the engine to be changed or added.

Changes that may affect the durability of the emission control system, including but not limited to changes that may affect catalyst durability, must also be reported. EPA considers emission-related running changes to be amendments which add an engine model, potentially affect emissions or durability, or affect emission-related components.

Many on-highway applicants have followed a practice of identifying successive amendments with a number which includes the family designation and model year of the engines being affected. (For example, the number of the first running change in the 1998 model year for family VXY145U1G1RA might be 97-145U1G1RA-01.) This practice has proved to be quite useful and is highly recommended. Running changes which result in changes or additions to information in the original application should be submitted using the same format as for application, but with the unaltered information left blank.

The concurrent notification procedure described at 40 CFR 90.122 (e) is similar to the optional notification procedure used by on-highway manufacturers. While this procedure does not eliminate EPA review, it does allow manufacturers to make changes without prior EPA review. However, if EPA determines that affected engines do not meet applicable requirements, EPA will notify the manufacturer that the running change is disapproved and to cease production of the affected engines.

## VII. Engine Family Name Carryover

To reflect its statutory obligation to issue annual certificates of conformity, and to be consistent with other EPA mobile source certification programs, EPA will be granting certificates for each model year using engine family names that identify that unique model year. These family names should be provided in the manufacturers' applications for certification. It is EPA's preference that these engine family names be updated on engine labels each year. However, for phase I, where there is no in-use testing requirement or in-use liability, EPA will allow the carryover of the original (old) engine family name on engine labels from year to year for carryover families.

## VIII. Data Carryover

Under 40 CFR 90.119(c), the engine manufacturer may request to use test data from a previous EPA model year to represent a new EPA model year. To obtain EPA approval for this

carryover status, any differences between the previous and new model year engines must be shown not to cause the engine family to exceed the emission standards.

## IX. Labeling

Under authority of 40 CFR 90.114(e) to modify the engine label content requirements contained in 40 CFR 90.114(c), EPA will consider requests for EPA approval of a common California and federal label. EPA would expect to approve such a request provided that the label states that the engine meets federal standards and includes the full corporate name and trademark of the engine manufacturer. See Appendix G for suggested Federal-only and combined Federal and California engine label language. Note that the engine must be certified both in California and federally to use the 50-state engine label option. It will be the manufacturer's responsibility to provide EPA and CARB a list of the engine families for which it intends to use a 50-state label.

If an engine family certified both in California and federally has different family names for CARB and EPA, the manufacturer has the option of: 1) using two different labels, or, 2) using one label which indicates compliance with California and federal regulations and also lists both family names, clearly indicating which is the federal and which is the California name.

Under 40 CFR 90.114(b), if nonroad equipment obscures the engine label, the nonroad equipment manufacturer must attach a supplemental label which is identical in content to the label which was obscured. EPA has determined that the intent of the Phase I small engine labeling requirements regarding the date of manufacture of the engine is met as long as that date is included on the engine label or is stamped on the engine, regardless of whether these dates are obscured by the nonroad vehicle. Thus, under authority of 40 CFR 90.114(e) to modify requirements of 40 CFR 90.114(c) or (d), EPA will permit equipment manufacturers to omit the date of engine manufacture from the supplemental label provided that such information is either on the engine label or stamped on the engine.

EPA will permit the equipment manufacturer's name to appear on the supplemental label and/or the engine emission label in place of the engine manufacturer's name provided that the engine manufacturer notifies EPA. (See item #6 on the small engine family form.)

## X. Certification Fuel

Manufacturers have four options for choice of certification fuel for this rule. The first two options are described at 40 CFR 90.308(b)(1). The first option is average in-use gasoline (e.g., Clean Air Act Baseline), specified at 40 CFR Part 90, Subpart D, Appendix A, Table 3. The second option is



federal certification fuel (e.g., Indolene), specified at 40 CFR 86.1313-94(a), Table N94-1. Note that manufacturers may request approval by the Administrator of fuels with substantially equivalent specifications to these two options.

Third, manufacturers may use other fuels, such as natural gas, propane, methanol, or others, under conditions described at 40 CFR 90.308(b)(2) and (3).

Fourth, manufacturers may request EPA approval for certification testing on fuels such as California "Phase 2" reformulated gasoline, which do not meet the requirements for "other fuels" under 40 CFR 90.308(b)(2) or (3). For this option, manufacturers should request EPA approval of an alternate test procedure (e.g., alternate test fuel) under 40 CFR 90.120(b)(1). Manufacturers may elect to use an alternative test procedure provided it yields results equal to the results from the specified test procedure (e.g., test fuels described at 40 CFR 90.308(b)), its use is approved by EPA, and the basis for equivalent results is fully described in the manufacturer's application (see 40 CFR 90.120(b)(1)). EPA will work with manufacturers to assist them in making the required technical demonstrations to show equivalency of the emission results.

## XI. Special and Alternate Test Procedures

Special and alternate test procedures may be used instead of prescribed test procedures in 40 CFR Part 90 upon EPA approval. Because EPA must monitor deviations from prescribed procedures, the certification format specified in this document requires that manufacturers attest that the prescribed regulatory procedures have been followed, or that the manufacturer must briefly describe any deviations from the prescribed regulatory procedures in the statement of compliance section of the application.

Regulations specify that special and alternate test procedures be approved by EPA. Special or alternate test procedures may include the use of alternate fuels, test cycles which differ from those described in the regulations, or any other deviation in test procedure. Manufacturers should propose special and alternate test procedures during the certification preview as described above. The next step following clarification and an initial indication of approval from EPA is to submit a written request for the special and alternate procedures. If EPA approves, an approval letter will be sent to the manufacturer. When the manufacturer submits an application for an engine family which was tested using special or alternate procedures, a description of the procedures must be included in the statement of compliance. The description should identify the engine families for which the procedure applies, include a brief explanation of the procedure(s) and provide adequate reference to more detailed documentation on the procedure and indication of EPA approval.

The requirements to seek EPA approval of special and alternate procedures and to report the procedures in the compliance statement apply to each applicable engine family for each model year regardless of carryover status.

# APPENDIX A

EPA Small Engine Certification Application Form

Instructions for Completing Application Form

## INSTRUCTIONS FOR COMPLETING EPA SMALL ENGINE CERTIFICATION APPLICATION FORM

### Confidential Business Information (CBI)

A Confidential Business Information (CBI) block has been included in the Family Information Form, the Test Information Form, and the Model Summary Form. The purpose of the CBI section is to allow the manufacturer to fill in the application completely and at the same time designate which pieces of information, if any, are to be kept confidential. Once the application has been received and reviewed by the EPA certification representative, the material designated confidential by the manufacturer, and upon EPA certification representative's consent, will be erased from the public version of the database and the remainder of the application will be made public.

To use the CBI section, first designate whether or not the information is to be kept confidential until introduced into commerce or indefinitely. If the material is CBI until introduction into commerce, type the introduction into commerce date in the blank on the top of the left hand column and enter the number preceding the question whose response is to remain confidential in the left-hand CBI column. If the material is to remain confidential indefinitely enter the number preceding the question whose response is to remain confidential in the right-hand CBI column.

### Diagnostic Check

The EPA database contains a built-in diagnostic check. The purpose of the diagnostic check is to ensure all required information has been entered on the Family Form and the Test Form. The diagnostic check also looks for common mistakes such as making sure the family name has the correct designator. The diagnostic check will not take the place of the certification reviewer. Any errors found on the Family Form, will be listed in a box to the right of the application labeled Family Form Checkout Box. Errors on the Test Form, will be listed in a box to the right of the application labeled Test Form Checkout Box.

## Small Engine Family Information Form

1. MANUFACTURER NAME
2. CONTACT PERSON, ADDRESS, PHONE AND FAX NUMBER

## A-3

List the individual who is to receive all communications. Unless clearly specified otherwise, this person will receive every form of correspondence, including the Certificate of Conformity. EPA prefers the manufacturer's primary contact be in the United States. If you wish for someone else to receive the Certificate of Conformity, please list that person's name and address second.

### 3. MODEL YEAR (Pull down menu)

List the 4 digit model year of the engine family, according to the definition in 40 CFR 90.3. (Example 1998).

### 4. PROCESS CODE (Pull down menu)

Enter either "New Submission", "New Sub-Cont.", "Correction", or "Running Change". Only enter "Running Change" if the engine family is already certified and you are submitting data to support a running change. "New Sub-Cont." is used when additional space is required on the original "New Submission".

### 5. ENGINE FAMILY NAME

Enter the engine family name. This name is composed of twelve letter and numeric characters formatted according to Appendix D of this guidance.

### 6. EMISSION LABEL

a) *Will a name other than the manufacturer's name appear on the label?*

A "Yes" response should be checked whenever a name other than the manufacturer's name may appear on either the engine label or the supplemental label or both.

b) List the engine family name which appears on the label. In cases where the manufacturer is using the option to carryover the old engine family name on the label, this response will be different from the response to #5.

### 7. ENGINE DISPLACEMENT CLASS (Pull down menu)

Engine class designations are specified at 40 CFR 90.116(b) as follows:(1)Class I - engines less than 225 cc displacement, 2)Class II - engines greater than or equal to 225 cc displacement,(3)Class III - hand held equipment engines less than 20 cc displacement,(4)Class IV - hand held equipment engines

## A-4

equal or greater than 20 cc but less than 50 cc displacement, and (5) Class V - hand held equipment engines equal to or greater than 50 cc displacement.

### 8. VALVE LOCATION/PORTING CONFIGURATION (Check box)

Specify where applicable side valve, overhead valve, or the type of intake porting utilized, such as reed valve, piston ported, or other. If other, please specify type. Please also check whether engine is a 2-stroke or 4-stroke.

### 9. COOLING MEDIUM (Pull down menu)

Indicate the medium employed actively to maintain the engine at an operational temperature, either "air" or "water" cooling.

### 10. HC & NO<sub>x</sub> WAIVER(s) (Pull down menu)

Enter either a "Yes" or "No" whether a waiver for this particular engine family is required. Waivers are available for engine used exclusively in snow throwers or ice augers.

### 11. ESTIMATED PRODUCTION PERIOD

List the anticipated beginning and end dates for the engine family's production. Date format is mm/dd/yy. The annual production period is defined in 40 CFR 90.106(b)(1). This information may be used to determine expiration of CBI claims which were made until introduction into commerce.

### 12. PROJECTED 50 STATE SALES

Enter the number of engines in the engine family projected for sale in the U.S. (Federal + California) for this model year.

### 13. PRODUCTION PLANT LOCATION(S) AND CONTACT(S)

Provide the address(es) of the plant(s) and contact(s) (including phone and fax) where production occurs. Indicate which models are produced at which plants. Include telephone and fax numbers.

14. MAJOR APPLICATION(S) (Check boxes)

Indicate what the expected major end-use equipment application(s) will be for the engine family. If not provided, please choose OTHER and specify the application.

- |   |  |
|---|--|
| <input type="checkbox"/> Lawnmower-2 stroke   | <input type="checkbox"/> Leaf Blower/Vacuum  |
| <input type="checkbox"/> Lawnmower-4 stroke   | <input type="checkbox"/> Tiller              |
| <input type="checkbox"/> Chainsaw             | <input type="checkbox"/> Ice Auger           |
| <input type="checkbox"/> Generator Set        | <input type="checkbox"/> Commercial Turf     |
| <input type="checkbox"/> Snowblower-2 stroke  | <input type="checkbox"/> Lawn/Garden Tractor |
| <input type="checkbox"/> Snowblower-4 stroke  | <input type="checkbox"/> Other...            |
| <input type="checkbox"/> Rear Engine Rider    |  |
| <input type="checkbox"/> Pump                 |  |
| <input type="checkbox"/> Trimmer/Edger/Cutter |  |

15. ADDITIONAL COMMENTS

This box is provided for anything in the application that needs further explanation. The box will hold as much and what ever type of additional information the manufacturer would like to add to the application.

## Small Engine Test Information Form

A separate copy of this form must be filled out for each different test engine. List multiple tests of the same engine on one form. Space is provided for reporting up to four tests per engine. If more than four tests on the same engine are performed, an additional sheet must be used. Each additional sheet must be numbered (see item #24).

### 16. ARE YOU CARRYING OVER TEST RESULTS.... (Pull down menu)

Indicate whether you are carrying over test results from a previously-certified EPA engine family. Enter "Yes" or "No".

If yes, indicate the family name from which test results are being carried over and whether the family being certified is identical to the family from which test data is being carried over, "Yes" or "No".

### 17. MODEL DESIGNATION OF TEST ENGINE

Enter the manufacturer's model number of the engine used for certification testing.

### 18. TEST ENGINE IDENTIFICATION NUMBER

List the test engine serial number.

### 19. SERVICE ACCUMULATION DURATION

Enter the number of service accumulation hours performed, following 40 CFR 90.118 and 90.408 (test engine break-in.) The break-in period is determined by the manufacturer to be the length of time the engine should be run to stabilize emissions. The manufacturer may use emission test results or engineering judgement to determine the appropriate break-in period.

### 20. MAXIMUM MODAL POWER

Specify the maximum modal power in kW or HP at maximum RPM of the test engine. Maximum Modal power is defined as the maximum power achieved by the engine during the emission test.



21. EMISSION SAMPLING METHOD (Pull down menu)

Indicate which emission sampling method was used to produce the test results, Raw-Gas Method (RGM), Constant Volume Sampling(CVS), or other. If other, please specify alternate method. In addition if "other" is selected, manufacturer must seek approval from EPA prior to testing.

22. CERTIFICATION FUEL (Pull down menu)

Indicate the type of fuel used for the certification emission test:

- Average in-use gasoline (e.g., "Clean Air Act Baseline"), specified at 40 CFR Part 90, Subpart D, Appendix A, Table 3.
- Federal Certification Fuel (e.g., "Indolene"), specified at 40 CFR 86.1313-94(a), Table N94-1.
- California "Phase 2" Reformulated Gasoline, specified in the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".
- Other. If you choose other, you must specify the fuel type.

If "other" or Cal. Ph II RFG is chosen, manufacturer must seek approval from EPA prior to testing.

23. TEST CYCLE (Pull down menu)

Indicate which test cycle was used, "A", "B", "C", "Special Test Procedure", "Alternate Test Procedure" or "Other", as described in 40 CFR 90.119(a), 90.408(b)(2), and Table 2 of Appendix A to Subpart E of 40 CFR 90. If other, please specify type. If Special Test Procedure, Alternative Test Procedure, or other, manufacturer must seek approval from EPA prior to testing.

24. TEST DATA SET

Enter the test data set number (e.g. 1,2,3...). The first data set is data set 1. Data sets 2, 3, etc. are reserved for additional test engines, the reporting of the fifth or higher test on the engine described in data set, or for the reporting of data generated for a running change.

25. TEST LOCATION AND CONTACTS

Indicate the location and contacts where the certification emission engine testing was conducted.

26. DISPLACEMENT

Indicate the displacement of the test engine in cubic centimeters.

27. CERTIFICATION EMISSION TEST RESULTS (Table)

List the date of the test and the final weighted emissions of the test engine for each of the following, as applicable. EPA prefers that emission results are reported in g/kW-hr.

HC  
CO  
NO<sub>x</sub>  
HC + NO<sub>x</sub>

Enter the Sales area (either Federal, California, or both). [To select both in the electronic version, first click on either button. Then while holding the shift key, select the unmarked button. Both should appear checked off at this time.]

The Fuel Setting options are "Rich", "Lean", "Nominal", or "Other". If "Other" is chosen, enter correct fuel setting. "Nominal" may be chosen for a fuel setting which is fixed or which is specified as the set to specification point.

Select the applicable units at the bottom of the table.

## Small Engine Model Summary Form

28. MODEL DESIGNATION (Table)

Enter each model number in an independent row.

29. DISPLACEMENT (Table)

Indicate the displacement of each model in the engine family in cubic centimeters. *Please do not leave blanks or use ditto marks.*

30. MAXIMUM POWER (Table)

Specify maximum power in kW or HP for the model engine(s). (Be sure correct units are listed in units box.) This specification may be rated power or advertised power as long as the same definition is used consistently to fill out the model summary table.

31. RATED SPEED (Table)

Enter the speed at which maximum power reported in #30 was achieved.

32. EMISSION CONTROL SYSTEMS (Table)

Indicate which emission related devices are used for each model, utilizing SAE abbreviations defined in SAE J1930 September, 1991, Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms (such as EM for engine modification).

## Small Engine Part Number Summary Form

### 33.-38. PART NUMBERS (*Table*)

Enter part numbers for each model designation in the engine family.

- 33. Spark plug
- 34. Catalyst
- 35. Carburetor
- 36. Distributor
- 37. ECM (Emission Control Module)
- 38. \_\_\_\_\_
- 39. \_\_\_\_\_
- 40. \_\_\_\_\_
- 41. \_\_\_\_\_

38 to 41 : Space for additional parts. Please list here the name of any AECD's or other parts required to be described along with the part number for each model.

## APPENDIX B

### Sample Statement of Compliance

## SAMPLE STATEMENT OF COMPLIANCE

Manufacturer Primary Contact

XY Engine Company  
4567 Industrial Highway  
El Monte, CA 91731

March 1, 1996

Anne Fredo  
Engine Compliance Programs Group  
U.S. Environmental Protection Agency  
Mail Code 6403J  
401 M Street, S.W.  
Washington, DC 20460

Dear Ms. Fredo:

Please find enclosed the model year 1997 application for engine family VXY145U1G1RA. On behalf of XY Engine Company, I hereby certify that the test engine(s), as described in this application for certification, has been tested in accordance with the applicable test procedures, utilizing the fuels and equipment required under subparts D and E of 40 CFR 90, and that on the basis of such tests the engine(s) conforms to the requirements of 40 CFR 90. I further certify that all engines in this engine family comply with all requirements of 40 CFR 90 and the Clean Air Act.

[OPTIONAL] I hereby assert that certain information in this application is confidential business information, and request that this information remain confidential until the introduction of these engines into commerce on [DATE]. The information which we assert to be confidential business information [is contained in the answers to questions \*\*, \*\*, and \*\* of the small engine certification application form] or [has been marked as confidential]. An additional copy of the application with this information deleted is enclosed.

Sincerely,

[MANUFACTURER PRIMARY CONTACT]

Enclosures

---

Refer in this letter to any alternate or special test procedure approvals or any other approvals required from EPA for this engine family.

## APPENDIX C

Sample Cover Letter and Statement of Compliance to Accompany CARB Certification Submittals

Sample Additional Information Sheet

SAMPLE  
COVER LETTER AND STATEMENT OF COMPLIANCE

Manufacturer Primary Contact  
XY Engine Company  
4567 Industrial Highway  
El Monte, CA 91731

March 1, 1996

Anne Fredo  
Engine Compliance Programs Group  
U.S. Environmental Protection Agency  
401 M Street, S.W., Mail Code 6403J  
Washington DC 20460

Dear Ms. Fredo:

Please find enclosed the California Air Resources Board Certification Review Sheet, Supplemental Data Sheet, and Additional Information Sheet for this engine family as our application for certification for engine family VXY145UIG1RA for model year 1997. On behalf of XY Engine Company, I hereby certify that the test engine(s), as described in this application for certification, has been tested in accordance with the applicable test procedures, utilizing the fuels and equipment required under subparts D and E of 40 CFR 90, and that on the basis of such tests the engine(s) conforms to the requirements of 40 CFR 90. I further certify that all engines in this engine family comply with all requirements of 40 CFR 90 and the Clean Air Act.

[OPTIONAL] I hereby assert that certain information in this application is confidential business information, and request that this information remain confidential until the introduction of these engines into commerce on [DATE]. The information which we assert to be confidential business information [is contained in the answers to questions \*\*, \*\*, and \*\* of the small engine certification application form] or [has been marked as confidential]. An additional copy of the application with this information deleted is enclosed.

Sincerely,

[MANUFACTURER PRIMARY CONTACT]

Enclosures

---

Refer in this letter to any alternate or special test procedure approvals or any other approvals required from EPA for this engine family.



## SAMPLE ADDITIONAL INFORMATION SHEET FOR CARB SUBMITTALS

1. Engine family name used on label: \_\_\_\_\_

Will a name other than the engine manufacturer's name appear on the label?

☐ Yes   ☐ No

If the manufacturer is using the option to carry over the family name on the engine label, please list the engine family name which appears on the label.

2. Estimated production period: Start date: \_\_\_\_\_  
End date: \_\_\_\_\_

List the anticipated beginning and end dates for the engine's production. The annual production period is defined in 40 CFR 90.106(b)(1).

3. Are you carrying over test result data from previously certified CARB engine family?    Yes \_\_\_\_  
No \_\_\_\_

If yes, indicate the engine family name: \_\_\_\_\_

4. Production plant location: \_\_\_\_\_

Provide the address(es) of the plant(s) where production occurs. Indicate which models are produced at which plants.

5. Projected U.S. sales: \_\_\_\_\_

Enter the number of engines in the engine family projected for sale in the U.S. for this model year.

6. Part numbers

Please attach a separate document, listing the part numbers for each model within each engine family, including part numbers for:

spark plug

AECDs

electronic control module(s)

carburetor

distributor

catalyst

7. Service accumulation duration: \_\_\_\_\_(hours)

Enter the number of service accumulation hours performed, following 40 CFR 90.118 and 90.408 (test engine break-in.)

8. Test cycle: A \_\_\_ B \_\_\_ C \_\_\_ Other \_\_\_

Indicate which test cycle was used, A, B, C, or other, as described at 40 CFR 90.119(a), 90.408(b)(2), and Table 2 of Appendix A to Subpart E of 40 CFR 90. If other, please specify type.

9. Certification emission test results (preferably in g/kW-hr):

In g/kW-hr, list the final weighted emissions of the test engine for each of the following, as applicable, calculating according to 40 CFR 90.419 or 90.426, as applicable, and following 40 CFR 90.410(d):

HC+NO<sub>x</sub> \_\_\_\_\_ HC \_\_\_\_\_ CO \_\_\_\_\_ NO<sub>x</sub> \_\_\_\_\_

## APPENDIX D

### EPA STANDARD ENGINE FAMILY NAMES

## EPA Standardized Engine Family Names for 1998<sup>2</sup> and Later Model Years

The following document is a final document prepared for distribution. It has been peer reviewed and EPA has made a decision to adopt this design.

Manufacturers must use a standardized system for identifying their individual engine families. The system described below was developed by EPA in 1995 to meet new regulatory requirements for 1998 and later model years.

The engine family name consists of 12 characters. For the displacement field, zero is used as a space character in the leading position when a value does not apply. To avoid confusion with numeric characters '0' and '1', characters 'l' and 'O' are not used. It is considered desirable to minimize use of characters 'Q', 'L', 'Z', 'S', 'G', which can be confused with '0', '1', '2', '5', and '6'; however, this has not always been possible. The following method is to be used to name engine families when data is submitted. The format of the standardized engine family name is:

### Family information for all families

Number Characters	Columns	Description
1	1	Model Year
3	2-4	Letter code identifying manufacturer.
1	5	Family type
	N -	Nonstandard family type
	V -	Light-duty vehicle family
	T -	Light-duty truck family
	C -	Motorcycle family
	E -	Evaporative family
	H -	Heavy, heavy-duty engine family
	S -	Small nonroad family
	L -	Large nonroad family

---

<sup>2</sup> For 1997 MY and earlier engine family naming, refer to previous EPA guidance.

# D-3

M	-	Marine engine family
A	-	California only medium duty family
R	-	Evaporative/ Refueling family

4	6-9	Displacement in liters (e.g. 05.7-the decimal point counts as a digit and the leading zero is a space) or cubic inches (e.g., 0350, 0097). For dual or variable displacement families enter the <u>maximum</u> displacement. For large displacement engines, the displacement may be entered as <u>XX.X</u> format (e.g., 12.1). Small engines may be entered as a <u>.XXX</u> format (e.g., .072, 0.07, 00.7). In all cases the displacement will be read in liters if a decimal point is entered and it will be read in cubic inches if there is no decimal point.
1	10	Engine Class. Engine class designations are specified at 40 CFR 90.116(b) as follows:(1)Class I-engines less than 225 cc in displacement,(2)Class II-engines greater than or equal to 225 cc in displacement,(3)ClassIII-hand held equipment engines less than 20 cc in displacement,(4)ClassIV-hand held equipment engines equal or greater than 20 cc but less than 50 cc in displacement, and(5)ClassV-hand held equipment engines equal to or greater than 50 cc in displacement.
2	11-12	Sequence characters. Enter any combination of valid characters to provide a unique identification for the family name. It is recommended that numbers and letters be selected that minimize possible confusion. <sup>3</sup>

---

<sup>3</sup>At a minimum, the sequence characters, in combination with the other characters in the family name, must provide a unique identifier for the family. It is recommended, but not required, that the sequence characters themselves be unique for all families for a manufacturer and model year. These sequence characters may be used to codify information to meet California's requirements, but they will be treated as simple sequence characters by EPA's computer software.

## EXAMPLE

Given: Company XY has a 1998 model 145.2-cc, gasoline-fueled, Otto-cycle engine that will power a walk-behind mower.

W	=	1997 model year
XYX	=	XY Engine Corporation
S	=	Small engine
14.5	=	Displacement in cubic inches
1	=	Engine Class 1. Non-hand held, less than 225 cc.
AB	=	2 character code which uniquely identifies the family name.

Therefore, the engine family name is WXYXS14.51AB.

TABLE 1. LETTER CODES FOR MODEL YEAR (Column 1)

Code	Year	Code	Year	Code	Year
A	1980	L	1990	Y	2000
B	1981	M	1991	1	2001
C	1982	N	1992	2	2002
D	1983	P	1993	3	2003
E	1984	R	1994	4	2004
F	1985	S	1995	5	2005
G	1986	T	1996	6	2006
H	1987	V	1997	7	2007
J	1988	W	1998	8	2008
K	1989	X	1999	9	2009

\* NOTE: EPA allows carryover of family name on labels; however, manufacturers must update family name on applications.

## APPENDIX E

Confidential Business Information in the Certification Application

As a general principle, information provided to EPA by individuals or companies will be considered public information and will be provided to those who request it unless the information falls under one of the exemptions listed in the Freedom of Information Act (the Federal statute which governs disclosure of information to the public). One of these exemptions is information which the submitting individual or company asserts is confidential or proprietary information (e.g., trade secrets).

Manufacturers are entitled to assert a claim of confidential business information (CBI) on the information which they are required to submit in a certification application. If information the manufacturer asserts to be CBI is information which is otherwise discernible by physical inspection of the nonroad engine or equipment (e.g., question 17, "Emission Control System"), EPA will not release any such information that qualifies as CBI before the effective date of the certificate. If the manufacturer wishes this information to remain confidential until the engine family is introduced into commerce (when this date is after the effective date of the certificate), the manufacturer must inform EPA of this actual date of introduction into commerce when it submits its certification application, and specifically request that the information remain confidential until the introduction date.

For example, consider this time line for a 1997 model year engine:

Date certificate issued: December 1, 1996

Date certificate is effective: January 2, 1997

Date of introduction into commerce: April 1, 1997

Under this time line, EPA would not release any CBI from the certificate application until April 1, 1997 or later, provided the manufacturer informs EPA of the date of introduction into commerce and makes such a request when it submits its certification package. See sample optional language for such a request in appendices B and C of this guidance.

Manufacturers should be aware that certain information in the certification application can retain CBI status even after the actual date the engines are introduced into commerce. If a manufacturer desires that certain information retain CBI status after the date the engines are introduced into commerce, it must make this request when it submits its application package by informing EPA of the length of time the manufacturer wishes the information to remain CBI.

Under EPA regulations at 40 CFR 90.4, manufacturers must indicate clearly what information submitted is confidential. Manufacturers may state in the application cover letter which sections of the application are CBI, or/and otherwise mark or stamp the CBI. Whenever a manufacturer submits an application which contains information asserted to be confidential, EPA urges the manufacturers to submit an additional application with all CBI deleted to accompany the original application.

Based on EPA's historical experience with certification applications in the on-highway program, EPA notes that certain information in the application should not be considered eligible to fall under a



CBI claim under any circumstances. This information is generally available to the public or competitors and disclosure of this information would not be likely to cause any harm to the competitive position of any manufacturer. The Engine Compliance Programs Group (ECPG) staff believes that the information provided in response to the following questions on the Small Engine Certification Application Form should not be considered confidential under any circumstances:

1. Manufacturer Name
2. Contact Person, Address, Telephone, Facsimile
3. Model Year
5. Engine Family Name
6. Engine Family Name Used on Label  
*Will a name other than the engine manufacturer's name appear on the engine label?*  
\_\_\_ Yes \_\_\_ No \_\_\_ Sometimes
7. Engine Displacement Class
8. Valve Location/porting Configuration
13. Production Plant Location
16. Carryover of Test Results
21. Emission Sampling Method
22. Certification Fuel
23. Test Cycle
25. Test Location
27. Certification Emission Test Results and Test Date

Finally, manufacturers should remember that, if EPA receives a request under the Freedom of Information Act for release of a certification application, EPA will inform the requestor (in writing) that all information asserted to be CBI by the manufacturer cannot be released until the Agency (which in this instance means the Office of General Counsel (OGC)) makes a "final determination of confidentiality." The EPCG staff will then write to the manufacturer to offer the opportunity to substantiate its claim about the business confidentiality of the information by answering some questions about the information (the questions can be found in regulations at 40 CFR 2.204(e)). The EPCG staff will review the manufacturer's responses to these questions and forward them with comments to the OGC for the final determination of confidentiality.

Any questions about this process should be addressed to:

Robert M. Doyle, Attorney-Advisor  
Engine Compliance Programs Group  
U.S. Environmental Protection Agency  
401 M Street, S.W. (6403J)  
Washington, DC 20460  
Telephone (202) 233-9258  
Facsimile (202) 233-9596  
E-mail - Doyle.Robert@EPAMAIL.EPA.GOV

## APPENDIX F

Sample Small Engine Certificate of Conformity

F-1

SMALL ENGINE CERTIFICATE OF CONFORMITY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

\_\_\_\_ MODEL YEAR

CERTIFICATE OF CONFORMITY

WITH THE CLEAN AIR ACT OF 1970 AS AMENDED IN 1990

ISSUED TO: \_\_\_\_\_

\_\_\_\_\_  
MANUFACTURER

\_\_\_\_\_  
CERTIFICATE NUMBER

\_\_\_\_\_  
CHESTER J. FRANCE, DIRECTOR, EPCD  
OFFICE OF MOBILE SOURCES

\_\_\_\_\_  
EFFECTIVE DATE

DATE ISSUED: \_\_\_\_\_

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. 7547) and 40 CFR 90, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued for the following small nonroad engine family, more fully described in the documentation required by 40 CFR 90 and produced in the stated model year:

SMALL NONROAD ENGINE FAMILY: \_\_\_\_\_

This certificate of conformity covers only those new small nonroad engines which conform in all material respects to the design specifications described in the documentation required by 40 CFR 90 and which are produced during the model year stated on this certificate. This certificate of conformity does not cover small nonroad engines imported prior to the effective date of the certificate.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 90.126 and 90.506 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR 90. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR 90.

This certificate does not cover small nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate, except as provided in 40 CFR 90.106(e) for model year 1997 only.

## APPENDIX G

### Sample Engine Label Wording

## SAMPLE ENGINE LABEL WORDING

### Federal Only Label

Labels indicating compliance with federal regulations only should follow wording specified at 40 CFR 90.114(c)(7):

This engine conforms to (model year) U.S. EPA regulations for small nonroad engines.

As an option, the manufacturer may substitute PHI or PHASE I for model year.

### Common California and Federal Label

To indicate that a CARB certified engine also meets federal standards, the label should read as follows:

This engine conforms to U.S. EPA PHI (or PHASE I) and [DATES] California emission regulations for ULGE engines.

OR

This engine conforms to U.S. EPA PHI (or PHASE I) regulations for small nonroad engines and [DATES] California emission regulations for ULGE engines.