

**PART 3**

**FINAL REGULATION ORDER TEST PROCEDURES**  
**(Part 1054)**

**Small Off-Road Engines**

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## FINAL REGULATION ORDER TEST PROCEDURES

Note: This appendix shows the entirety of regulatory amendments to the test procedures titled below, which were approved by the Air Resources Board on December 16, 2011, and refined via subsequent conforming modifications authorized under Resolution 11-41. Incorporated by reference into these test procedures are portions of Title 40 of the Code of Federal Regulations (CFR) Part 1054 – Control of Emissions from New, Small Nonroad Spark-Ignition Engines and Equipment, including Subparts A, B, C, D, E, F, G, H and I, as amended November 8, 2010; and, the internally referenced sections of Title 40 CFR, Parts 60, 80, 86, 90, and 1065. Sections that have been included in their entirety are set forth with the section number and title. California provisions that replace specific federal language provisions are denoted by the words “DELETE” for the federal language and “REPLACE WITH” or “ADD” for the California language. The notation [ \* \* \* \* \* ] or [ ... ] means that the remainder of the CFR text for a specific section is not shown in these procedures but has been incorporated by reference, with only the printed text changed. CFR sections that are not listed are not part of the test procedures. If there is any conflict between the provisions of this document and the California Health and Safety Code, Division 26, or Title 13 of the California Code of Regulations (CCR), the Health and Safety Code and Title 13 apply.

This document is all newly adopted text.

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**State of California  
AIR RESOURCES BOARD**

**CALIFORNIA EXHAUST EMISSION STANDARDS AND  
TEST PROCEDURES FOR NEW 2013 AND LATER SMALL OFF-ROAD ENGINES**

**ENGINE-TESTING PROCEDURES  
(PART 1054)**

Adopted: October 25, 2012

PART 1054 – CONTROL OF EMISSION FROM NEW, SMALL NONROAD SPARK-IGNITION ENGINES AND EQUIPMENT .....	1
Subpart A – Overview and Applicability .....	1
§ 1054.1 Does this part apply for my engines and equipment? .....	1
§ 1054.2 Who is responsible for compliance?.....	2
§ 1054.5 Which nonroad engines are excluded from this part's requirements? .....	2
§ 1054.10 How is this part organized? .....	2
§ 1054.15 Do any other CFR parts apply to me? .....	2
§ 1054.20 What requirements apply to my equipment? .....	3
§ 1054.30 Submission of information. ....	3
Subpart B—Emission Standards and Related Requirements.....	5
§ 1054.101 What emission standards and requirements must my engines meet? .....	5
§ 1054.103 What exhaust emission standards must my handheld engines meet? .....	6
§ 1054.105 What exhaust emission standards must my nonhandheld engines meet?.....	7
§ 1054.107 What is the useful life period for meeting exhaust emission standards? .....	7
§ 1054.110 What evaporative emission standards must my handheld equipment meet? .....	8
§ 1054.112 What evaporative emission standards must my nonhandheld equipment meet? .....	8
§ 1054.115 What other requirements apply? .....	8
§ 1054.120 What emission-related warranty requirements apply to me?.....	9
§ 1054.125 What maintenance instructions must I give to buyers? .....	10
§ 1054.130 What installation instructions must I give to equipment manufacturers? .....	11
§ 1054.135 How must I label and identify the engines I produce? .....	12
§ 1054.140 What is my engine's maximum engine power and displacement? ....	12
§ 1054.145 Are there interim provisions that apply only for a limited time? .....	13
Subpart C—Certifying Emission Families.....	14
§ 1054.201 What are the general requirements for obtaining a certificate of conformity? .....	14
§ 1054.205 What must I include in my application? .....	14
§ 1054.210 May I get preliminary approval before I complete my application? ....	17
§ 1054.220 How do I amend the maintenance instructions in my application? ....	17
§ 1054.225 How do I amend my application for certification to include new or modified engines or fuel systems or change an FEL?.....	17
§ 1054.230 How do I select emission families?.....	17
§ 1054.235 What exhaust emission testing must I perform for my application for a certificate of conformity? .....	18
§ 1054.240 How do I demonstrate that my emission family complies with exhaust	

emission standards? .....	19
§ 1054.245 How do I determine deterioration factors from exhaust durability testing? .....	19
§ 1054.250 What records must I keep and what reports must I send to EPA? ....	22
§ 1054.255 What decisions may EPA make regarding my certificate of conformity? .....	22
Subpart D—Production-Line Testing .....	25
§1054.300 .....	25
Subpart E—In-use Testing .....	26
§ 1054.401 General provisions. ....	26
Subpart F—Test Procedures .....	27
§ 1054.501 How do I run a valid emission test? .....	27
§ 1054.505 How do I test engines? .....	29
§ 1054.520 What testing must I perform to establish deterioration factors? .....	30
Subpart G—Special Compliance Provisions .....	31
§ 1054.601 What compliance provisions apply? .....	31
§ 1054.610 What is the exemption for delegated final assembly? .....	31
§ 1054.612 What special provisions apply for equipment manufacturers modifying certified nonhandheld engines? .....	31
§ 1054.615 What is the exemption for engines certified to standards for Large SI engines? .....	31
§ 1054.620 What are the provisions for exempting engines used solely for competition? .....	31
§ 1054.625 What requirements apply under the Transition Program for Equipment Manufacturers? .....	31
§ 1054.626 What special provisions apply to equipment imported under the Transition Program for Equipment Manufacturers? .....	32
§ 1054.630 What provisions apply for importation of individual items for personal use? .....	32
§ 1054.635 What special provisions apply for small-volume engine and equipment manufacturers? .....	32
§ 1054.640 What special provisions apply to branded engines? .....	32
§ 1054.645 What special provisions apply for converting an engine to use an alternate fuel? .....	32
§ 1054.650 What special provisions apply for adding or changing governors? ....	32
§ 1054.655 What special provisions apply for installing and removing altitude kits? .....	32
§ 1054.660 What are the provisions for exempting emergency rescue equipment? .....	33
§ 1054.690 What bond requirements apply for certified engines? .....	33
Subpart H—Averaging, Banking and Trading for Certification .....	34
§1054.701 General Provisions .....	34

Subpart I—Definitions and Other Reference Information .....	35
§ 1054.801 What definitions apply to this part?.....	35
§ 1054.805 What symbols, acronyms, and abbreviations does this part use? .....	41
§ 1054.815 What provisions apply to confidential information? .....	41
§ 1054.820 How do I request a hearing? .....	42
§ 1054.821 Right of entry and access. ....	42
§ 1054.825 What reporting and recordkeeping requirements apply under this part? .....	44
Appendix II to Part 1054—Duty Cycles for Laboratory Testing .....	45



# CALIFORNIA EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR NEW 2013 AND LATER SMALL OFF-ROAD ENGINES

The following provisions of Part 1054, Title 40, Code of Federal Regulations, as proposed by the United States Environmental Protection Agency on the date listed, are adopted and incorporated herein by this reference for 2013 model year and later small off-road engines as the California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines, except as altered or replaced by the provisions set forth below.

## PART 1054 – CONTROL OF EMISSION FROM NEW, SMALL NONROAD SPARK-IGNITION ENGINES AND EQUIPMENT

SOURCE: 75 FR 59259, November 8, 2010, unless otherwise noted.

### Subpart A – Overview and Applicability

#### § 1054.1 Does this part apply for my engines and equipment?

\* \* \* \* \*

(a) (2) DELETE,  
REPLACE WITH:

The requirements of this part related to evaporative emissions apply as specified in Title 13, California Code of Regulations, Chapter 15, Article 1 to fuel systems used with engines subject to exhaust emission standards in this part if the engines use a volatile liquid fuel (such as gasoline).

(a) (3) DELETE,  
REPLACE WITH:

This part 1054 applies starting with the 2013 model year for all small spark-ignition off-road engines and equipment.

(a) (4) DELETE,  
REPLACE WITH:

The provisions of CCR 2403(f) currently apply for new engines used in emergency rescue equipment.

(a) (5) DELETE.

(b) DELETE.

(c) DELETE,  
REPLACE WITH:

See California Exhaust Emission Standards and Test Procedures for 2005 – 2012 Small Off-Road Engines for requirements that apply to engines not yet subject to the requirements of this part 1054.

(d) DELETE.

(e) DELETE.

§ 1054.2 Who is responsible for compliance?

DELETE,  
REPLACE WITH:

The requirements and prohibitions of this part apply to manufacturers of engines and equipment, as described in §1054.1. The requirements of this part are generally addressed to manufacturers subject to this part's requirements. The term “you” generally means the certifying manufacturer. For provisions related to exhaust emissions, this generally means the engine manufacturer, especially for issues related to certification (including production-line testing, reporting, etc.).

For provisions related to certification with respect to evaporative emissions, this generally means the equipment manufacturer. Equipment manufacturers must meet applicable requirements as described in Title 13, California Code of Regulations, Chapter 15, Article 1. Engine manufacturers that assemble an engine's complete fuel system are considered to be the equipment manufacturer with respect to evaporative emissions.

§ 1054.5 Which nonroad engines are excluded from this part's requirements?

DELETE,  
REPLACE WITH:

This part does not apply to the engines that are excluded in the “small off-road engine” definition found in Title 13, section 2401.

§ 1054.10 How is this part organized?

\* \* \* \* \*

§ 1054.15 Do any other CFR parts apply to me?

(a) DELETE.

\* \* \* \* \*

(c) DELETE.

\* \* \* \* \*

§ 1054.20 What requirements apply to my equipment?

\* \* \* \* \*

(b) DELETE,

REPLACE WITH:

All equipment subject to the exhaust standards of Title 13, California Code of Regulations, Chapter 9, Article 1, must also meet the evaporative emission standards of Title 13, California Code of Regulations, Chapter 15, Article 1.

(c) DELETE,

REPLACE WITH:

You must identify and label equipment you produce under 40 CFR part 1054 consistent with the requirements of Title 13, California Code of Regulations, Chapter 9, Article 1, Section 2404 and Chapter 15, Article 1, Section 2759.

(d) DELETE,

REPLACE WITH:

You must certify your equipment or fuel systems as described in Title 13, California Code of Regulations, Chapter 15, Article 1.

(e) DELETE,

REPLACE WITH:

You must follow all emission-related installation instructions from the certifying manufacturers as described in §1054.130, and Title 13, California Code of Regulations, Chapters 9 and 15. Failure to follow these instructions may subject you to civil penalties.

(f) DELETE.

§ 1054.30 Submission of information.

(a) DELETE,

REPLACE WITH:

This part includes various requirements to record data or other information. Refer to §1054.825 and Title 13, California Code of Regulations, Chapters 9 and 15 regarding recordkeeping requirements. If recordkeeping requirements are not specified, store these records in any format and on any media and keep them readily available for one model year after you send an associated application for certification, or one year after you generate the data if they do not support an application for certification. You must promptly send us organized, written records in English if we ask for them. We may review them at any time.

(b) DELETE,

REPLACE WITH:

The regulations in §1054.255 describe your obligation to report truthful and complete information and the consequences of failing to meet this obligation. This includes information not related to certification.

\* \* \* \* \*

Subpart B—Emission Standards and Related Requirements

§ 1054.101 What emission standards and requirements must my engines meet?

(a) DELETE,  
REPLACE WITH:

(a)(1) *Exhaust emissions.* All engines must meet the requirements in §1054.115. Exhaust emissions from small off-road spark-ignition engines manufactured for sale, sold, offered for sale in California, or that are introduced, delivered or imported into California for introduction into commerce, must not exceed:

Exhaust Emission Standards for Spark-Ignition Engines  
(grams per kilowatt-hour)

Model Year	Displacement Category	Durability Periods (hours)	Hydrocarbon plus Oxides of Nitrogen <sup>(1)(3)</sup>	Carbon Monoxide	Particulate
2005 and subsequent	<50 cc	50/125/300	50	536	2.0 <sup>(2)</sup>
	50-80 cc, inclusive	50/125/300	72	536	2.0 <sup>(2)</sup>
2008 and subsequent	>80 cc - <225 cc	125/250/500	10.0	549	
	≥ 225 cc	125/250/500/1000	8.0	549	

(1) The Executive Officer may allow gaseous-fueled (i.e., propane, natural gas) engine families, that satisfy the requirements of the regulations, to certify to either the hydrocarbon plus oxides of nitrogen or hydrocarbon emission standard, as applicable, on the basis of the non-methane hydrocarbon (NMHC) portion of the total hydrocarbon emissions.

(2) Applicable to all two-stroke engines.

(3) Engines used exclusively to power products which are used exclusively in wintertime, at the option of the engine manufacturer, may comply with the provisions in Part 1054.101(a)(2)(ii).

(2) (i) Two-stroke engines used to power snowthrowers may meet the emission standards for engines at or less than 80 cc in displacement.

(ii) Engines used exclusively to power products which are used exclusively in wintertime, such as snowthrowers and ice augers, at the option of the engine manufacturer, need not certify to or comply with standards regulating emissions of HC+NO<sub>x</sub> or NMHC+NO<sub>x</sub>, as applicable. If the manufacturer exercises the option to certify to standards regulating such emissions, such engines must meet such standards. If the engine is to be used in any equipment or vehicle other than an exclusively wintertime product such as a snowthrower or ice auger, it must be certified to the applicable standard regulating emissions of HC+NO<sub>x</sub> or NMHC+NO<sub>x</sub> as applicable.

(3) Low-emitting Blue Sky Series engine requirements.

*Voluntary standards.* Engines may be designated “Blue Sky Series” engines by meeting:

(i) All applicable requirements of this Article, and

(ii) The following voluntary exhaust emission standards, which apply to all certification and compliance testing. Blue Sky Series engines shall not be included in the averaging, banking, and trading program. Zero-emission small off-road equipment may certify to the Blue Sky Series emission standards. Manufacturers of zero-emission small off-road equipment are not required to perform emissions testing, but must file an application of certification and comply with the administrative requirements outlined in these procedures.

Voluntary Emission Standards  
(grams per kilowatt-hour)

Model Year	Displacement Category	Hydrocarbon plus Oxides of Nitrogen	Carbon Monoxide	Particulate*
2005 and subsequent	<50 cc	25	536	2.0
	50 - 80 cc, inclusive	36	536	2.0
2007 and subsequent	>80 cc - <225 cc	5.0	549	
2008 and subsequent	≥225 cc	4.0	549	

\* Applicable to all two-stroke engines

(b) DELETE,  
REPLACE WITH:

*Evaporative emissions.* Except as specified in §1054.20, new equipment using engines that run on a volatile liquid fuel (such as gasoline) must meet the evaporative emission requirements as specified in Title 13, California Code of Regulations, Chapter 15, Article 1.

\* \* \* \* \*

(d) DELETE.

(e) DELETE.

\* \* \* \* \*

§ 1054.103 What exhaust emission standards must my handheld engines meet?

(a) DELETE,  
REPLACE WITH:

*Emission standards.* The exhaust emissions from your engines may not exceed the emission standards that are specified in §1054.101. Measure emissions

using the applicable steady-state test procedures described in subpart F of this part.

(b) DELETE,  
REPLACE WITH:

*Averaging, banking, and trading.* You may generate or use emission credits under the averaging, banking, and trading (ABT) program for HC+NO<sub>x</sub> emissions and Particulate Matter emissions as described in Title 13, California Code of Regulations, Chapter 9, Article 1.

\* \* \* \* \*

(e) DELETE,  
REPLACE WITH:

*Applicability for testing.* The emission standards in Title 13, California Code of Regulations, Chapter 9, Article 1 apply to all testing, including certification, production-line, in-use, and new engine compliance testing.

§ 1054.105 What exhaust emission standards must my nonhandheld engines meet?

(a) DELETE,  
REPLACE WITH:

*Emission standards.* Exhaust emissions from your engines may not exceed the emission standards that are specified in §1054.101. Measure emissions using the applicable steady-state test procedures described in subpart F of this part.

(b) DELETE,  
REPLACE WITH:

*Averaging, banking, and trading.* You may generate or use emission credits under the averaging, banking, and trading (ABT) program for HC+NO<sub>x</sub> emissions and Particulate Matter emissions as described in Title 13, California Code of Regulations, Chapter 9, Article 1.

\* \* \* \* \*

(e) DELETE,  
REPLACE WITH:

*Applicability for testing.* The emission standards in Title 13, California Code of Regulations, Chapter 9, Article 1 apply to all testing, including certification, production-line, in-use, and new engine compliance testing.

§ 1054.107 What is the useful life period for meeting exhaust emission standards?

\* \* \* \* \*

(a) (1) DELETE,  
REPLACE WITH:

The useful life period for exhaust requirements is the number of engine operating hours from Title 13, California Code of Regulations, Chapter 9, Article 1, Section 2404 that most closely matches the expected median in-use life of your engines. The median in-use life of your engine is the shorter of the following values:

(i) The median in-use life of equipment into which the engine is expected to be installed.

(ii) The median in-use life of the engine without being scrapped or rebuilt.

(2) DELETE.

(3) DELETE.

\* \* \* \* \*

§ 1054.110 What evaporative emission standards must my handheld equipment meet?

DELETE,  
REPLACE WITH:

All equipment must meet the evaporative emission requirements as specified in Title 13, California Code of Regulations, Chapter 15, Article 1. The evaporative emission requirements apply for handheld equipment over a useful life of five years.

§ 1054.112 What evaporative emission standards must my nonhandheld equipment meet?

DELETE,  
REPLACE WITH:

All equipment must meet the evaporative emission requirements as specified in Title 13, California Code of Regulations, Chapter 15, Article 1. The evaporative emission requirements apply for nonhandheld equipment over a useful life of five years.

§ 1054.115 What other requirements apply?

\* \* \* \* \*

(b) DELETE,  
REPLACE WITH:

*Adjustable parameters.* Engines that have adjustable parameters must meet all the requirements of this part for any adjustment in the physically adjustable range. An operating parameter is not considered adjustable if you permanently



seal it or if it is not normally accessible using ordinary tools. We may require that you set adjustable parameters to any specification within the adjustable ranges during any testing including certification testing, production-line testing, in-use testing, or new engine compliance testing.

(c) DELETE,  
REPLACE WITH:

*Altitude adjustments.* Engines must meet applicable emission standards for valid tests conducted under the ambient conditions specified in 40 CRF 1065.520. Engines must meet applicable emission standards at all specified atmospheric pressures except: (i) engines with displacements  $\leq 80$  cc for atmospheric pressures below 96.0 kPa; and, (ii) engines with displacements  $> 80$  cc may rely on an altitude kit for atmospheric pressures below 94.0 kPa if you meet the requirements specified in 1054.205(r). If you rely on an altitude kit for certification, you must identify in the owners manual the altitude range for which you expect proper engine performance and emission control with and without the altitude kit; you must also state in the owners manual that operating the engine with the wrong engine configuration at a given altitude may increase its emissions and decrease fuel efficiency and performance. In your application for certification, identify the altitude above which you rely on an altitude kit to meet emission standards and describe your plan for making information and parts available such that you would reasonably expect that altitude kits would be widely used at all such altitudes.

\* \* \* \* \*

§ 1054.120 What emission-related warranty requirements apply to me?

DELETE,  
REPLACE WITH:

The requirements of this section and Title 13, CCR, Chapter 9, Article 1 apply to the manufacturer certifying with respect to exhaust emissions. See Title 13, CCR, Chapter 15, Article 1 for the warranty requirements related to evaporative emissions.

\* \* \* \* \*

(b) (1) DELETE,  
REPLACE WITH:

The minimum warranty period is two years.

(b) (2) DELETE.

(b) (3) DELETE.

(c) DELETE,

REPLACE WITH:

*Components covered.* The emission-related warranty covers all components whose failure would increase an engine's emissions of any regulated pollutant, including components listed in Title 13, California Code of Regulations, Chapters 9 and 15, and components from any other system you develop to control emissions. The emission-related warranty covers these components even if another company produces the component. Your emission-related warranty does not cover components whose failure would not increase an engine's emissions of any regulated pollutant.

(d) DELETE.

\* \* \* \* \*

(f) (3) (i) DELETE,  
REPLACE WITH:

If you have authorized service centers in all California population centers with a population of 100,000 or more based on the 2010 census, you may limit warranty repairs to these service providers.

(f) (3) (ii) DELETE,  
REPLACE WITH:

You may limit warranty repairs to authorized service centers for owners located within 100 miles of an authorized service center. For owners located more than 100 miles from an authorized service center, you must state in your warranty that you will either pay for shipping costs to and from an authorized service center, provide for a service technician to come to the owner to make the warranty repair, or pay for the repair to be made at a local non-authorized service center.

(f) (3) (iii) DELETE,  
REPLACE WITH:

You must have at least one authorized service center in California.

(f) (4) DELETE.

§ 1054.125 What maintenance instructions must I give to buyers?

DELETE,  
REPLACE WITH:

Give the ultimate purchaser of each new engine written instructions for properly maintaining and using the engine, including the emission control system as described in this section. The maintenance instructions also apply to service accumulation on your emission-data engines as described in §1054.245 and in 40 CFR part 1065. Note that for engines with a displacement of less than or equal to 80 cc you may perform maintenance on emission-data engines during

service accumulation provided that exhaust emission tests are performed before and after the maintenance is performed.

\* \* \* \* \*

(d) DELETE,  
REPLACE WITH:

*Noncritical emission-related maintenance.* Subject to the provisions of this paragraph (d), you may schedule any amount of emission-related inspection or maintenance that is not covered by paragraph (a) of this section (i.e., maintenance that is neither explicitly identified as critical emission-related maintenance, nor that we approve as critical emission-related maintenance). Noncritical emission-related maintenance generally includes re-seating valves, removing combustion chamber deposits, or any other emission-related maintenance on the components we specify in Title 13, California Code of Regulations, Chapters 9 and 15 that is not covered in paragraph (a) of this section. You must state in the owner's manual that these steps are not necessary to keep the emission-related warranty valid. If operators fail to do this maintenance, this does not allow you to disqualify those engines from in-use testing or deny a warranty claim. Do not take these inspection or maintenance steps during service accumulation on your emission-data engines.

\* \* \* \* \*

§ 1054.130 What installation instructions must I give to equipment manufacturers?

\* \* \* \* \*

(b) (2) DELETE,  
REPLACE WITH:

State: "Failing to follow these instructions when installing a certified engine in off-road equipment violates California law, subject to penalties as described in Title 13, California Code of Regulations."

\* \* \* \* \*

(b) (4) DELETE,  
REPLACE WITH:

Describe the steps needed to control evaporative emissions in accordance with Executive Order that you hold. Include instructions for connecting fuel lines as needed to prevent running loss emissions, if applicable. Such instructions must include sufficient detail to ensure that running loss control will not cause the engine to exceed exhaust emission standards. For example, you may specify a maximum vapor flow rate under normal operating conditions. Also include

notification that the installer must meet the requirements of §1054.112 and Title 13, California Code of Regulations, Chapter 15, Article 1.

\* \* \* \* \*

(b) (7) DELETE,  
REPLACE WITH:

State: "If you install the engine in a way that makes the engine's emission control information label hard to read during normal engine maintenance, you must place a duplicate label on the equipment, as described in Title 13, California Code of Regulations, Chapter 9, Article 1, Section 2404."

\* \* \* \* \*

§ 1054.135 How must I label and identify the engines I produce?

DELETE,  
REPLACE WITH:

The label shall meet the requirements specified in Section 2404, Title 13 of the California Code of Regulations.

§ 1054.140 What is my engine's maximum engine power and displacement?

\* \* \* \* \*

(a) DELETE,  
REPLACE WITH:

An engine configuration's maximum engine power is the maximum brake power point on the nominal power curve for the engine configuration, as defined in this section. Round the power value to the nearest 0.1 kilowatts for nonhandheld engines and to the nearest 0.01 kilowatts for handheld engines. The nominal power curve of an engine configuration is the relationship between maximum available engine brake power and engine speed for an engine, using the mapping procedures of 40 CFR part 1065, based on the manufacturer's design and production specifications for the engine. For handheld engines, we may allow manufacturers to base the nominal power curve on other mapping procedures. This information may also be expressed by a torque curve that relates maximum available engine torque with engine speed. Note that maximum engine power is based on engines and installed engine governors; equipment designs that further limit engine operation do not change maximum engine power.

\* \* \* \* \*

§ 1054.145 Are there interim provisions that apply only for a limited time?

\* \* \* \* \*

- (a) DELETE.
- (b) DELETE.
- (c) DELETE.
- (d) DELETE.
- (e) DELETE.
- (f) DELETE.
- (g) DELETE.
- (h) DELETE.
- (i) DELETE.

(j) DELETE,  
REPLACE WITH:

*Continued use of California Exhaust Emission Standards and Test Procedures for 2005 through 2012 Small Off-Road Engines.* You may use the test procedures for measuring exhaust emissions in the California Exhaust Emission Standards and Test Procedures for 2005 through 2012 Small Off-Road Engines instead of those in subpart F of this part for the 2013 through 2014 model years. This applies for certification, production-line, and in-use testing. You may continue to use data based on the test procedures in the California Exhaust Emission Standards and Test Procedures for 2005 through 2012 Small Off-Road Engines for engine families in 2014 and later model years, provided that we allow you to use carryover emission data under 40 CFR 1054.235(d) for your engine family. You may also use the test procedures for measuring exhaust emissions in the California Exhaust Emission Standards and Test Procedures for 2005 to 2012 Small Off-Road Engines for production-line testing with any engine family whose certification is based on testing with those procedures.

(k) DELETE.

\* \* \* \* \*

- (m) DELETE.
- (n) DELETE.

(o) DELETE.

Subpart C—Certifying Emission Families

§ 1054.201 What are the general requirements for obtaining a certificate of conformity?

DELETE,  
REPLACE WITH:

Engine manufacturers must certify their engines with respect to the exhaust emission standards in Title 13, CCR, Chapter 9, Article 1, Section 2403. Manufacturers of engines, equipment, or fuel-system components may need to certify their products with respect to evaporative emission standards as described in Title 13, CCR, Chapter 15, Article 1. The following general requirements apply for obtaining an Executive Order:

(a) DELETE,  
REPLACE WITH:

You must send us a separate application for an Executive Order for each engine family. An Executive Order is not valid for any production after December 31 of the model year for which it is issued. If you certify with respect to both exhaust and evaporative emissions, you must submit separate applications.

\* \* \* \* \*

(d) DELETE.

\* \* \* \* \*

(h) DELETE.

ADD:

(i) The Executive Officer may request notification, prior to the initial model year submission of an engine manufacturer's certification application(s), of the engine manufacturer's intent to seek engine family certification (i.e., a letter of intent) so that the Executive Officer can adequately allocate resources required for reviewing such certification applications in a timely manner. Such letters of intent must provide the engine manufacturer's best estimate of general information for the applicable model-year certification, such as identification of each engine family, date of expected submission, etc.

§ 1054.205 What must I include in my application?

DELETE,  
REPLACE WITH:

This section specifies the information that must be in your application, unless we ask you to include less information under §1054.201(c). We may require you to provide additional information to evaluate your application. The provisions of this section apply to the manufacturer that is to be granted an Executive Order.

(a) DELETE,  
REPLACE WITH:

Describe the engine family's specifications and other basic parameters of the engine's design and emission controls (i.e., catalyst specifications). List the fuel type on which your engines are designed to operate (for example, all-season gasoline). List each distinguishable engine configuration in the engine family.

\* \* \* \* \*

(i) DELETE,  
REPLACE WITH:

Include the maintenance and warranty instructions you will give to the ultimate purchaser of each new engine (see §§1054.120 and 1054.125). Describe your basis for meeting the warranty-assurance provisions in §1054.120(f). Describe your recall repair network if it is different than your warranty repair network.

\* \* \* \* \*

(l) DELETE,  
REPLACE WITH:

Identify the emission standards or FELs for the engine family. Include a statement indicating whether the manufacturer intends to include the engine family in a corporate average, and, if so, an estimate of the overall corporate average emissions for that model year.

\* \* \* \* \*

(p) (1) DELETE,  
REPLACE WITH:

Report all test results involving measurement of pollutants for which emission standards apply. Include test results from invalid tests and from any other tests, whether or not they were conducted according to the test procedures of subpart F of this part. We may ask you to send other information to confirm that your tests were valid under the requirements of this part; Title 13, CCR, Chapters 9 and 15; and 40 CFR 1065.

(2) DELETE,  
REPLACE WITH:

Report measured CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> as described in §1054.235.

\* \* \* \* \*

ADD:

(q) (5) Information including but not limited to part numbers, technical specifications, schematics, and photographs of physical samples.

(r) DELETE,  
REPLACE WITH:

Describe how your engines with a displacement of greater than 80 cc comply with emission standards at varying atmospheric pressures. Include a description of altitude kits you designed to comply with the requirements of §1054.115(c). Identify the part number of each component you describe. Identify the altitude range for which you expect proper engine performance and emission control with and without the altitude kit. State that your engines will comply with applicable emission standards throughout the useful life with the altitude kit installed according to your instructions. Describe any relevant testing, engineering analysis, or other information in sufficient detail to support your statement. In addition, describe your plan for making information and parts available such that you would reasonably expect that altitude kits would be widely used in the high-altitude counties. For example, engine owners should have ready access to information describing when an altitude kit is needed and how to obtain this service. Similarly, parts and service information should be available to qualified service facilities in addition to authorized service centers if that is needed for owners to have such altitude kits installed locally.

(s) DELETE.

\* \* \* \* \*

(u) DELETE,  
REPLACE WITH:

Unconditionally certify that all the engines in the engine family comply with the requirements of this part, other referenced parts of the CFR as incorporated and modified herein, California's Health and Safety Code, and CCR 2400-2409.

(v) DELETE,  
REPLACE WITH:

Include good-faith estimates of California-directed production volumes. Include a justification for the estimated production volumes if they are substantially different than actual production volumes in earlier years for similar models. Also indicate whether you expect the engine family to contain only off-road engines, only stationary engines, or both.

(w) DELETE.

(x) DELETE,  
REPLACE WITH:

Include the information required by other subparts of this part.



(y) DELETE,  
REPLACE WITH:

Include other applicable information, such as information specified in this part related to requests for exemptions.

\* \* \* \* \*

§ 1054.210 May I get preliminary approval before I complete my application?

DELETE.

§ 1054.220 How do I amend the maintenance instructions in my application?

\* \* \* \* \*

§ 1054.225 How do I amend my application for certification to include new or modified engines or fuel systems or change an FEL?

\* \* \* \* \*

(a) (3) DELETE.

\* \* \* \* \*

(f) DELETE.

§ 1054.230 How do I select emission families?

(a) DELETE,  
REPLACE WITH:

For purposes of certification, divide your product line into families of engines that are expected to have similar emission characteristics throughout their useful life as described in this section. Your engine family is limited to a single model year. For evaporative emissions, group engines into emission families as described in the California Code of Regulations, Chapter 15, Article 1.

\* \* \* \* \*

(d) (1) DELETE.

(d) (2) DELETE.

\* \* \* \* \*

§ 1054.235 What exhaust emission testing must I perform for my application for a certificate of conformity?

\* \* \* \* \*

(a) DELETE,  
REPLACE WITH:

Select an emission-data engine from each engine family for testing as described in 40 CFR 1065.401. Select a configuration that is most likely to exceed the HC+NO<sub>x</sub> standard. Configurations must be tested as they will be produced, including installed governors, if applicable.

\* \* \* \* \*

(c) (3) DELETE,  
REPLACE WITH:

For engines with adjustable parameters, manufacturers must test the engines at both extremes of the adjustment, as applicable.

\* \* \* \* \*

(g) DELETE,  
REPLACE WITH:

Measure CO<sub>2</sub> and CH<sub>4</sub> with each low-hour certification test using the procedures specified in 40 CFR part 1065 starting in the 2013 model year. Also measure N<sub>2</sub>O with each low-hour certification test using the procedures specified in 40 CFR part 1065 starting in the 2013 model year for any engine family that depends on NO<sub>x</sub> aftertreatment to meet emission standards. Use the same units and modal calculations as for your other results to report a single weighted value for each constituent. Round the final values as follows:

- (1) Round CO<sub>2</sub> to the nearest 1 g/kW-hr.
- (2) Round N<sub>2</sub>O to the nearest 0.001 g/kW-hr.
- (3) Round CH<sub>4</sub> to the nearest 0.001 g/kW-hr.

ADD:

(h) The use of auxiliary fans for engine cooling must be indicated in the application for certification. The manufacturer must justify to the satisfaction of the Executive Officer in the application for certification the need for and use of such fans. The manufacturer must also demonstrate that the supplemental cooling resulting from the use of the fans is representative of in-use engine operation.

§ 1054.240 How do I demonstrate that my emission family complies with exhaust emission standards?

(a) DELETE,  
REPLACE WITH:

For purposes of certification, your engine family is considered in compliance with the emission standards in §1054.101(a) if all emission-data engines representing that family have test results showing deteriorated emission levels at or below these standards. This includes all test points over the course of the durability demonstration. Note that your FELs are considered to be the applicable emission standards with which you must comply if you participate in the ABT program.

\* \* \* \* \*

(c) DELETE,  
REPLACE WITH:

Determine a deterioration factor to compare emission levels from the emission-data engine with the applicable emission standards. Section 1054.245 specifies how to test engines to develop deterioration factors that represent the expected deterioration in emissions over your engines' full useful life. Calculate a multiplicative deterioration factor as described in §1054.245. If the deterioration factor is less than one, use one. Specify the deterioration factor to one more significant figure than the emission standard.

\* \* \* \* \*

§ 1054.245 How do I determine deterioration factors from exhaust durability testing?

DELETE,  
REPLACE WITH:

(a) Small-volume engine manufacturers may, at their option, use deterioration factors (DF) for HC+NO<sub>x</sub> (NMHC+NO<sub>x</sub>) and CO from Table 1 or Table 2 of this paragraph (a) or they may calculate deterioration factors for HC+NO<sub>x</sub> (NMHC+NO<sub>x</sub>) and CO according to the process described in paragraph (d) of this section. For technologies that are not addressed in Table 1 or Table 2 of this paragraph (a), the manufacturer may ask the Executive Officer to assign a deterioration factor prior to the time of certification.

(b) Table 1 follows:

TABLE 1: ENGINES GREATER THAN 80 CC HC+NO<sub>x</sub> (NMHC+NO<sub>x</sub>) AND CO ASSIGNED DETERIORATION FACTORS FOR SMALL VOLUME ENGINE MANUFACTURERS

Displacement Category	Side valve engines		Overhead valve engines		Engines with aftertreatment
	HC+NO <sub>x</sub> (NMHC+NO <sub>x</sub> )	CO	HC+NO <sub>x</sub> (NMHC+NO <sub>x</sub> )	CO	
>80 cc-<225 cc	2.1	1.1	1.5	1.1	DFs must be calculated using the formula in Subsection (d) below
≥ 225 cc	1.6	1.1	1.4	1.1	

(c) Table 2 follows:

TABLE 2. ENGINES AT OR BELOW 80 CC HC+NO<sub>x</sub> (NMHC+NO<sub>x</sub>) AND CO ASSIGNED DETERIORATION FACTORS FOR SMALL VOLUME ENGINE MANUFACTURERS

Displacement category	Two-stroke engines <sup>1</sup>		Four-stroke engines		Engines with aftertreatment
	HC+NO <sub>x</sub> (NMHC+NO <sub>x</sub> )	CO	HC+NO <sub>x</sub> (NMHC+NO <sub>x</sub> )	CO	
0-80 cc, inclusive	1.1	1.1	1.5	1.1	DFs must be calculated using the formula in Subsection (d) below

<sup>1</sup> Two-stroke technologies to which these assigned deterioration factors apply include conventional two-strokes, compression wave designs, and stratified scavenging designs.

(d) Formula for calculating deterioration factors for engines with aftertreatment:

$$DF = [(NE * EDF) - (CC * F)] / (NE - CC)$$

Where:

DF = deterioration factor.

NE = new engine emission levels prior to the catalyst (g/kW-hr).

EDF = deterioration factor for engines without catalyst as shown in Table 1 or Table 2 of this paragraph.

CC = amount converted at 0 hours in g/kW-hr.

F = 0.8 for HC (NMHC), 1.0 for NO<sub>x</sub>, and 0.8 for CO for all classes of engines.

(e)(1) Manufacturers shall obtain an assigned DF or calculate a DF, as appropriate, for each regulated pollutant for all engine families. Such DF shall be used for certification, production line testing, and Selective Enforcement Auditing.

(2) For engines not using assigned deterioration factors from Table 1 or Table 2 of paragraph (a) of this section, deterioration factors shall be determined as follows:

- (i) The new prototype engine must be emissions tested at zero hour (break-in) with all emission control systems (e.g., EGR, catalysts, etc.) installed.
- (ii) The engine must be aged on the emissions durability cycle to the first test point. The manufacturer must choose its test points that are equally divided (same number of hours  $\pm$  2 hours). An emissions test is conducted at half the emissions durability period  $\pm$  2 hours.
- (iii) The prototype engine must be emissions tested at each test point. Following testing the durability cycle must be continued to the next point.
- (iv) Only specified maintenance may be performed during durability cycle testing. In addition, an emission test must be performed before and after the maintenance is performed.
- (v) When the prototype engine has been aged on the durability cycle to the full emissions durability cycle, a final emissions test must be conducted.
- (vi) For each pollutant, a line must be fitted to the data points treating the initial test as occurring at hour=0, and using the method of least-squares. The deterioration factor is the calculated emissions at the end of the emissions durability period divided by the calculated emissions at zero hours.
- (vii) If the engine manufacturer conducts more than one test at a test point, the number of tests at every test point must be the same. All tests must be used in a linear regression analysis as separate points to determine the deterioration factor.
- (viii) Additional engines identical to the original test engine may be tested with prior approval from the Executive Officer. In such cases, data collection must remain consistent for all test engines. The testing of multiple engines requires the determination of separate deterioration factors for each test engine. The official deterioration factor shall be the average of the separate deterioration factors for each test engine.
- (ix) The product of the zero-hour (break-in) results from the engine multiplied by the deterioration factor is the emissions certification value for that engine family and pollutant. In the case of multiple zero-hour tests on a single engine, the engine manufacturer must select the last zero-hour test as the official zero-hour test upon which the deterioration factor is applied. If multiple engines are tested, the manufacturer must select the highest zero-hour result among the last zero-hour test of each engine as the official zero-hour test upon which the deterioration factor is applied.

(3) ARB may reject a DF if it has evidence that the DF is not appropriate for that engine family within 30 days of receipt from the manufacturer. The manufacturer must retain actual emission test data to support its choice of DF and furnish that data to the Executive Officer upon request. Manufacturers may request approval by the Executive Officer of alternative procedures for determining deterioration. Any submitted DF not rejected by ARB within 30 days shall be deemed to have been approved.

(4) Calculated deterioration factors may cover families and model years in addition to the one upon which they were generated if the manufacturer submits a justification acceptable to the Executive Officer in advance of certification that the affected engine families can be reasonably expected to have similar emission deterioration characteristics.

(5) Engine families that undergo running changes need not generate a new DF, if the manufacturer submits a justification acceptable to the Executive Officer concurrent with the running change that the affected engine families can be reasonably expected to have similar emission deterioration characteristics.

§ 1054.250 What records must I keep and what reports must I send to EPA?

(a) DELETE,  
REPLACE WITH:

Send to the Chief, Mobile Source Operations Division, 9528 Telstar Avenue, El Monte, CA, 91731, information related to your California-directed production volumes as described in §1054.345. In addition, within 45 days after the end of the model year, you must send ARB a report describing information about engines you produced during the model year as follows:

(a) (1) DELETE,  
REPLACE WITH:

State the total California and Federal production volume for each engine family.

(a) (2) DELETE.

(a) (3) DELETE.

(a) (4) DELETE.

\* \* \* \* \*

§ 1054.255 What decisions may EPA make regarding my certificate of conformity?

(a) DELETE,  
REPLACE WITH:

If we determine your application is complete and shows that the engine family meets all the requirements of 40 CFR part 1054, the California Health and Safety Code, and Title 13, California Code of Regulations, Chapters 9 and 15, we will issue an Executive Order for your engine family for that model year. We may make the approval subject to additional conditions.

(b) DELETE,

REPLACE WITH:

We may deny your application for certification if we determine that your engine family fails to comply with emission standards or other requirements of 40 CFR part 1054 or the California Health and Safety Code or Title 13, California Code of Regulations, Chapters 9 and 15. We will base our decision on all available information. If we deny your application, we will explain why in writing.

\* \* \* \* \*

(c) (4) DELETE,  
REPLACE WITH:

Deny us from completing authorized activities (see subsections (i) through (vi) below). This includes a failure to provide reasonable assistance.

(i) We may inspect your testing, manufacturing processes, storage facilities (including port facilities for imported engines and equipment or other relevant facilities), or records, as authorized by California law, to enforce the provisions of 40 CFR part 1054. Inspectors will have authorizing credentials and will limit inspections to reasonable times—usually, normal operating hours.

(ii) If we come to inspect, we may or may not have a warrant or court order.

(A) If we do not have a warrant or court order, you may deny us entry.

(B) If we have a warrant or court order, you must allow us to enter the facility and carry out the activities it describes.

(iii) We may seek a warrant or court order authorizing an inspection described in this section whether or not we first tried to get your permission to inspect.

(iv) We may select any facility to do any of the following:

(A) Inspect and monitor any aspect of engine or equipment manufacturing, assembly, storage, or other procedures, and any facilities where you do them.

(B) Inspect and monitor any aspect of engine or equipment test procedures or test-related activities, including test engine/equipment selection, preparation, service accumulation, emission duty cycles, and maintenance and verification of your test equipment's calibration.

(C) Inspect and copy records or documents related to assembling, storing, selecting, and testing an engine or piece of equipment.

(D) Inspect and photograph any part or aspect of engines or equipment and components you use for assembly.

(v) You must give us reasonable help without charge during an inspection authorized by California law, including but not limited to the Health and Safety Code. For example, you may need to help us arrange an inspection with the facility's managers, including clerical support, copying, and translation. You may also need to show us how the facility operates and answer other questions. If we ask in writing to see a particular employee at the inspection, you must ensure that he or she is present (legal counsel may accompany the employee).

(vi) If you have facilities in other countries, we expect you to locate them in places where local law does not keep us from inspecting as described in this section. We will not try to inspect if we learn that local law prohibits it, but we may suspend your certificate if we are not allowed to inspect.

\* \* \* \* \*

(c) (7) DELETE,  
REPLACE WITH:

Take any action that otherwise circumvents the intent of the California Health and Safety Code, or 40 CFR part 1054 or Title 13, California Code of Regulations, Chapters 9 and 15.

(d) DELETE,  
REPLACE WITH:

We may void your certificate if you do not keep the records we require or do not give us information as required under 40 CFR part 1054 or the California Health and Safety Code, or Title 13, California Code of Regulations, Chapters 9 and 15.

\* \* \* \* \*



## Subpart D—Production-Line Testing

§1054.300

DELETE,

REPLACE WITH:

§1054.300 General provisions.

Upon the Executive Officer's request, the manufacturer must supply a reasonable number of production engines for testing and evaluation. These engines must be representative of typical production and supplied for testing at such time and place and for such reasonable periods as the Executive Officer may require. Manufacturers must comply with the production-line testing provisions as specified in Title 13, California Code of Regulations, Section 2407.

Subpart E—In-use Testing

§ 1054.401 General provisions.

\* \* \* \* \*

Subpart F—Test Procedures

§ 1054.501 How do I run a valid emission test?

\* \* \* \* \*

(b) (2) (ii) DELETE,  
REPLACE WITH:

For engines with a displacement of greater than eighty cubic centimeters, you may use the blended fuel for certifying engines under this part without our advance approval. If you use the blended fuel for certifying a given engine family, you must also use it for production-line testing or any other testing you perform for that engine family under this part. If the certification of all your engine families in a given model year is based on test data collected using the blended fuel, we will also use the blended fuel for testing your engines. If the certification of some but not all of your engine families in a given model year is based on test data collected using the blended fuel, we may use the blended fuel or the specified gasoline test fuel for testing any of your engines.

\* \* \* \* \*

(b) (3) (ii) DELETE,  
REPLACE WITH:

*Intake air temperature.* Measure engine intake air temperature as described in 40 CFR 1065.125, and control it if necessary. For example, since the purpose of this requirement is to ensure that the measured air temperature is consistent with the intake air temperature that would occur during in-use operation at the same ambient temperature, do not cool the intake air and do not measure air temperature at a point where engine heat affects the temperature measurement.

\* \* \* \* \*

ADD:

(b) (8) Engine service accumulation and stabilization procedure. Use the service accumulation procedure determined by the manufacturer for exhaust emission stabilizing of an engine, consistent with good engineering practice.

(i) The manufacturer determines, for each engine family, the number of hours at which the engine exhaust emission control system combination is stabilized for emission testing. However, this stabilization procedure may not exceed 12 hours. The manufacturer must maintain, and provide to the Executive Officer upon request, a record of the rationale used in making this determination. If the manufacturer can document that at some time prior to the full 12 hour service accumulation period the engine emissions are decreasing for the remainder of the 12 hours, the service accumulation may be completed at that time. The

manufacturer may elect to accumulate 12 hours on each test engine within an engine family without making this determination.

(ii) During service accumulation, the fuel and lubricants specified in 40 CFR 1065 must be used.

(iii) Engine maintenance during service accumulation is allowed only in accordance with 40 CFR 1065.

(9) Engine pre-test preparation.

(i) Drain and charge the fuel tank(s) with the specified test fuel to 50 percent of the tank's nominal capacity. If an external fuel tank is used, the engine fuel inlet system pressure must be typical of what the engine will see in use.

(ii) If you are using the raw gas sampling method, operate the engine on the dynamometer measuring the fuel consumption and torque before and after the emission sampling equipment is installed, including the sample probe.

(10) Analyzer pre-test procedures.

(i) If necessary, warm up and stabilize the analyzer(s) before calibrations are performed.

(ii) Replace or clean the filter elements and then leak check the system as required by 40 CRF 1065. If necessary, allow the heated sample line, filters and pumps to reach operating temperature.

(iii) Perform the following system checks:

(A) If necessary, check the sample line temperature. Heated FID sample line temperature must be maintained between 110°C and 230°C; a heated NO<sub>x</sub> sample line temperature must be maintained between 60°C and 230°C.

(B) Check that the system response time has been accounted for prior to sample collection data recording.

(C) A HC hang-up check is permitted.

(iv) Check analyzer zero and span before and after each test at a minimum. Further, check analyzer zero and span any time a range change is made or at the maximum demonstrated time span for stability for each analyzer used.

(11) Check system flow rates and pressures and reset, if necessary.

\* \* \* \* \*

(c) (2) DELETE,  
REPLACE WITH:

Describe in your application for certification any specially designed fixtures or other hardware if they are needed for proper testing of your engines. (Note: You do not need to specify the size or performance characteristics of engine dynamometers.) You must send us these fixtures or other hardware if we ask for them. We may waive the requirement of §1054.205(aa) to identify a test facility in the United States for such engine families as long as the projected California-directed production volume of all your engine families using the provisions of this paragraph (c)(2) is less than 5 percent of your total production volume from all engine families certified under this part 1054.

(d) DELETE,  
REPLACE WITH:

*Wintertime engines.* You may test wintertime engines at the ambient temperatures specified in 40 CFR 1065.520, even though this does not represent in-use operation for these engines (40 CFR 1065.10(c)(1)). In this case, you may modify the test engine as needed to achieve intake temperatures that are analogous to in-use conditions. You may also test wintertime engines at reduced ambient temperatures as specified in 40 CFR 1051.505. Use the gasoline specified for low-temperature testing only if you test your engines at ambient temperatures below 20 °C.

§ 1054.505 How do I test engines?

(a) DELETE,  
REPLACE WITH:

This section describes how to test engines under steady-state conditions. For engines with a displacement of less than or equal to eighty cubic centimeters you must perform tests with discrete-mode sampling. For engines with a displacement of greater than eighty cubic centimeters we allow you to perform tests with either discrete-mode or ramped-modal testing methods. You must use the same modal testing method for certification and all other testing you perform for an engine family. If we test your engines to confirm that they meet emission standards, we will use the modal testing method you select for your own testing. If you submit certification test data collected with both discrete-mode and ramped-modal testing (either in your original application or in an amendment to your application), either method may be used for subsequent testing. We may also perform other testing as allowed by the California's Health and Safety Code. Conduct duty-cycle testing as follows:

\* \* \* \* \*

(a) (2) DELETE,  
REPLACE WITH:

For ramped-modal testing, start sampling at the beginning of the first mode and continue sampling until the end of the last mode. Calculate emissions and cycle statistics the same as for transient testing as specified in 40 CFR part 1065. Unless we specify otherwise, you may simulate the governor for ramped-modal testing.

\* \* \* \* \*

§ 1054.520 What testing must I perform to establish deterioration factors?

\* \* \* \* \*

Subpart G—Special Compliance Provisions

§ 1054.601 What compliance provisions apply?

(a) DELETE,

REPLACE WITH:

Engine and equipment manufacturers, as well as owners, operators, and rebuilders of engines subject to the requirements of this part, and all other persons, must observe the provisions of this part and the provisions of California's Health and Safety Code.

\* \* \* \* \*

(c) (1) DELETE,

REPLACE WITH:

You must label the engine as specified in Title 13, Chapter 9, Article 1, Section 2404.

\* \* \* \* \*

§ 1054.610 What is the exemption for delegated final assembly?

DELETE.

§ 1054.612 What special provisions apply for equipment manufacturers modifying certified nonhandheld engines?

DELETE.

§ 1054.615 What is the exemption for engines certified to standards for Large SI engines?

DELETE.

§ 1054.620 What are the provisions for exempting engines used solely for competition?

DELETE.

§ 1054.625 What requirements apply under the Transition Program for Equipment Manufacturers?

DELETE.

§ 1054.626 What special provisions apply to equipment imported under the Transition Program for Equipment Manufacturers?

DELETE.

§ 1054.630 What provisions apply for importation of individual items for personal use?

DELETE.

§ 1054.635 What special provisions apply for small-volume engine and equipment manufacturers?

DELETE,

REPLACE WITH:

This section describes how we apply the special provisions in this part for small-volume engine and equipment manufacturers. Small-volume engine and equipment manufacturers may use assigned deterioration factors. See §1054.245.

§ 1054.640 What special provisions apply to branded engines?

\* \* \* \* \*

§ 1054.645 What special provisions apply for converting an engine to use an alternate fuel?

DELETE,

REPLACE WITH:

An Executive Order is no longer valid for an engine if the engine is modified such that it is not in a configuration covered by the Executive Order. Such engines may need to be recertified as specified in 40 CFR part 1054 if the Executive Order is no longer valid for that engine.

DELETE.

§ 1054.650 What special provisions apply for adding or changing governors?

\* \* \* \* \*

(b) DELETE.

§ 1054.655 What special provisions apply for installing and removing altitude kits?

DELETE,

REPLACE WITH:



An action for the purpose of installing or modifying altitude kits and performing other changes to compensate for changing altitude is not considered a prohibited act as long as it is done consistent with the manufacturer's instructions.

§ 1054.660 What are the provisions for exempting emergency rescue equipment?

DELETE,

REPLACE WITH:

Fire and police departments and other entities that specialize in emergency response may purchase emergency equipment powered by a non-California certified engine under the provisions specified in Title 13, Chapter 9, Article 1, Section 2403(f).

§ 1054.690 What bond requirements apply for certified engines?

DELETE.

Subpart H—Averaging, Banking and Trading for Certification

§1054.701 General Provisions.

DELETE,  
REPLACE WITH:

Each manufacturer must comply with all provisions of the averaging, banking, and trading program outlined in Title 13, California Code of Regulations, Sections 2408-2409, for each engine family participating in that program.

Subpart I—Definitions and Other Reference Information

§ 1054.801 What definitions apply to this part?

DELETE,

REPLACE WITH:

The following definitions apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning California's Health and Safety Code gives to them. The definitions follow:

*Adjustable parameter* DELETE,

REPLACE WITH:

Adjustable parameter means any device, system, or element of design that someone can adjust (including those which are difficult to access) and that, if adjusted, may affect emissions or engine performance during emission testing or normal in-use operation.

\* \* \* \* \*

*Alcohol-fueled engine* DELETE.

*Amphibious vehicle* DELETE.

*Applicable emission standard or applicable standard* DELETE,

REPLACE WITH:

*Applicable emission standard or applicable standard* means an emission standard to which an engine (or equipment) is subject. Additionally, if an engine (or equipment) has been or is being certified to another standard or FEL, *applicable emission standard* means the FEL or other standard to which the engine (or equipment) has been or is being certified.

\* \* \* \* \*

ADD:

*Certificate of Conformity* means an Executive Order issued in accordance with the California Health and Safety Code, Division 26, Part 5 chapters 1 and 2.

*Certification* DELETE,

REPLACE WITH:

*Certification* means, with respect to new small off-road engines, obtaining an executive order for an engine family complying with the small off-road engine emission standards and requirements specified in the California Code of Regulations, Title 13, chapter 9, Sections 2400-2409.

*Certified emission level* DELETE.

*Class I* DELETE.

*Class II* DELETE.

*Class III* DELETE.

*Class IV* DELETE.

*Class V* DELETE.

*Clean Air Act* DELETE.

*Cold-weather equipment* DELETE.

*Crankcase emissions* DELETE.

\* \* \* \* \*

*Date of manufacture* DELETE.

*Days* DELETE,

REPLACE WITH:

*Days* means calendar days unless otherwise specified. For example, when we specify working days we mean calendar days, excluding weekends and California state holidays.

*Designated Compliance Officer* DELETE,

REPLACE WITH:

*Designated Compliance Officer* means the Executive Officer of the Air Resources Board or a designee of the Executive Officer.

*Designated Enforcement Officer* DELETE.

\* \* \* \* \*

*Deterioration factor* DELETE,

REPLACE WITH:

*Deterioration factor* means the relationship between emissions at the end of useful life and emissions at the low-hour test point (see §§1054.240 and 1054.245), expressed as the ratio of emissions at the end of useful life to emissions at the low-hour test point.

\* \* \* \* \*

*Dry weight* DELETE.

\* \* \* \* \*

*Emission control system* DELETE.

\* \* \* \* \*

*Engine* DELETE,

REPLACE WITH:

*Engine* as used in this part, refers to small off-road engine.

\* \* \* \* \*

*Engine manufacturer* DELETE.

ADD:

*EPA* means Air Resources Board.

\* \* \* \* \*

*Equipment manufacturer* DELETE,

REPLACE WITH:

*Equipment manufacturer* means a manufacturer of equipment with an engine . All such equipment manufacturing entities under the control of the same person are considered to be a single equipment manufacturer.

*Evaporative* DELETE,

REPLACE WITH:

*Evaporative* means relating to fuel emissions controlled by Title 13, California Code of Regulations, Chapter 15, Article 1. This generally includes emissions that result from permeation of fuel through the fuel-system materials or from ventilation of the fuel system.

*Excluded* DELETE.

ADD:

*Executive Order* means an order issued by the Executive Officer of the Air Resources Board or his or her delegate certifying engines for sale in California.

*Exempted* DELETE.

\* \* \* \* \*

*Family emission limit (FEL)* DELETE,

REPLACE WITH:

*Family emission limit (FEL)* means an emission level declared by the manufacturer that will be used in the ABT program. The family emission level will take the place of an otherwise applicable emission standard. The family emission limit must be expressed to the same number of decimal places as the

emission standard it replaces. The family emission limit serves as the emission standard for the engine family (exhaust) or emission family (evaporative) with respect to all required testing.

\* \* \* \* \*

*Fuel line* DELETE.

\* \* \* \* \*

*Good engineering judgment* DELETE.

*Handheld* DELETE,  
REPLACE WITH:

*Handheld* means equipment that contains an engine with a displacement of less than 80cc.

\* \* \* \* \*

*Integrated equipment manufacturer* DELETE.

\* \* \* \* \*

*Manufacturer* DELETE.

*Marine engine* DELETE.

*Marine generator engine* DELETE.

*Marine vessel* DELETE.

\* \* \* \* \*

*Maximum test torque* DELETE.

*Model year* DELETE.

*Motor vehicle* DELETE.

*New nonroad engine* DELETE.

*New nonroad equipment* DELETE.

*Noncompliant engine or noncompliant equipment* DELETE.

*Nonconforming engine or nonconforming equipment* DELETE.

\* \* \* \* \*

*Nonintegrated equipment manufacturer* DELETE.

*Nonmethane hydrocarbon* DELETE,  
REPLACE WITH:

*Nonmethane hydrocarbon (NMHC)* means the sum of all hydrocarbon species except methane. Refer to §1065.660 for NMHC determination.

\* \* \* \* \*

*Nonroad* DELETE.

*Nonroad engine* DELETE,  
REPLACE WITH:

*Nonroad engine* means a small off-road engine as defined in the California Code of Regulations, Title 13, Chapter 9, Section 2401.

\* \* \* \* \*

*Permeation emissions* DELETE.

*Phase 1* DELETE.

*Phase 2* DELETE.

*Phase 3* DELETE.

\* \* \* \* \*

*Pressurized oil system* DELETE.

\* \* \* \* \*

*Rated-speed equipment* DELETE  
REPLACE WITH:

*Rated-speed equipment* means equipment in which the installed engine is intended for operation at a rated speed that is nominally 3600 rpm or higher.

*Recreational application* DELETE.

\* \* \* \* \*

*Revoke* DELETE.

\* \* \* \* \*

*Running loss emissions* DELETE.

\* \* \* \* \*

*Small-volume emission family* DELETE.

*Small-volume engine manufacturer* DELETE,  
REPLACE WITH:

*Small-volume engine manufacturer* means any engine manufacturer whose total production of small off-road engines slated for sale in California are projected at the time of certification of a given model year to be nor more than 500 engines.

*Small-volume equipment manufacturer* DELETE.

\* \* \* \* \*

*Structurally integrated nylon fuel tank* DELETE.

*Subchapter U* DELETE.

*Suspend* DELETE.

\* \* \* \* \*

*Tethered gas cap* DELETE.

\* \* \* \* \*

*Total hydrocarbon* DELETE,  
REPLACE WITH:

*Total hydrocarbon (THC)* means the combined mass of organic compounds measured by the specified procedure for measuring total hydrocarbon, expressed as a hydrocarbon with a hydrogen-to-carbon mass ratio of 1.85:1.

*Total hydrocarbon equivalent* DELETE,  
REPLACE WITH:

*Total hydrocarbon equivalent (THCE)* means the sum of the carbon mass contributions of non-oxygenated hydrocarbons, alcohols and aldehydes, or other organic compounds that are measured separately as contained in a gas sample, expressed as exhaust hydrocarbon from petroleum-fueled engines. The hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1.

\* \* \* \* \*

*Ultimate purchaser* DELETE,  
REPLACE WITH:



*Ultimate purchaser* means, with respect to any new small off-road equipment or new small off-road engine, the first person who in good faith purchases such new off-road equipment or new off-road engine for purposes other than resale.

*United States* DELETE.

*Upcoming model year* DELETE.

*U.S.-directed production volume* DELETE.

*Useful life* DELETE,

REPLACE WITH:

*Useful life* means the period during which the engine and equipment are designed to properly function in terms of power output and intended function, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. It is the period during which an off-road engine must comply with all applicable emission standards. If an engine has no hour meter, the specified number of hours does not limit the period during which an in-use engine is required to comply with emission standards unless the degree of service accumulation can be verified separately.

\* \* \* \* \*

*Vessel* DELETE.

*Void* DELETE.

\* \* \* \* \*

*We (us, our)* DELETE:

REPLACE WITH:

*We (us, our)* means the Air Resources Board and any authorized representatives.

\* \* \* \* \*

§ 1054.805 What symbols, acronyms, and abbreviations does this part use?

\* \* \* \* \*

§ 1054.815 What provisions apply to confidential information?

DELETE,

REPLACE WITH:

(a) Clearly show what you consider confidential by marking, circling, bracketing, stamping, or some other method.

(b) We will handle your confidential information as described in Title 17, California Code of Regulations, Section 91000-91022.

(c) If you send us information without claiming it is confidential, we may make it available to the public without further notice to you.

§ 1054.820 How do I request a hearing?

DELETE,

REPLACE WITH:

The hearing procedure set forth in Subchapter 1.25, Title 17, California Code of Regulations, Section 60040, et seq. apply to this subpart.

ADD:

§ 1054.821 Right of entry and access.

(a) Any engine manufacturer affected by these regulations, upon receipt of prior notice must admit or cause to be admitted during operating hours any ARB Enforcement Officer that has presented proper credentials to any of the following:

(1) Any facility where tests or procedures or activities connected with such tests or procedures are or were performed.

(2) Any facility where any new small off-road engine is present and is being, has been, or will be tested.

(3) Any facility where a manufacturer constructs, assembles, modifies, or builds-up an engine into a certification engine that will be tested for certification.

(4) Any facility where any record or other document relating to any of the above is located.

(b) Upon admission to any facility referred to in paragraph (c)(1) of this Section, any ARB Enforcement Officer must be allowed:

(1) To inspect and monitor any part or aspect of such procedures, activities, and testing facilities, including, but not limited to, monitoring engine preconditioning, emissions tests and break-in, maintenance, and engine storage procedures.

(2) To verify correlation or calibration of test equipment; and,

(3) To inspect and make copies of any such records, designs, or other documents; and,

(4) To inspect and/or photograph any part or aspect of any such certification engine and any components to be used in the construction thereof.

(c) To permit an ARB determination whether production small off-road engines conform in all material respects to the design specifications that apply to those engines described in the Executive Order certifying such engines and to standards prescribed herein. Engine manufacturers must, upon receipt of prior notice, admit any ARB Enforcement Officer, upon presentation of credentials, to:

(1) Any facility where any document design, or procedure relating to the translation of the design and construction of engines and emission related components described in the application for certification or used for certification testing into production engines is located or carried on; and,

(2) Any facility where any small off-road engines to be introduced into commerce are manufactured or assembled.

(3) Any California retail outlet where any small off-road engine is sold.

(d) On admission to any such facility referred to in this Section, any ARB Enforcement Officer must be allowed:

(1) To inspect and monitor any aspects of such manufacture or assembly and other procedures;

(2) To inspect and make copies of any such records, documents or designs; and,

(3) To inspect and photograph any part or aspect of any such new small off-road engines and any component used in the assembly thereof that are reasonably related to the purpose of the Enforcement Officer's entry.

(e) Any ARB Enforcement Officer must be furnished by those in charge of a facility being inspected with such reasonable assistance as may be necessary to discharge any function listed in this paragraph. Each applicant for or recipient of certification is required to cause those in charge of a facility operated for its benefit to furnish such reasonable assistance without charge to the ARB irrespective of whether or not the applicant controls the facility.

(f) The duty to admit or cause to be admitted any ARB Enforcement Officer applies whether or not the applicant owns or controls the facility in question and applies both to domestic and foreign engine manufacturers and facilities. The ARB will not attempt to make any inspections that it has been informed that local law forbids. However, if local law makes it impossible to insure the accuracy of data generated at a facility, no informed judgment that an engine is certifiable or is covered by an Executive Order can properly be based on the data. It is the responsibility of the engine manufacturer to locate its testing and manufacturing facilities in jurisdictions where this situation will not arise.

(g) For purposes of this Section:

(1) "Presentation of credentials" means a display of a document designating a person to be an ARB Enforcement Officer.

(2) Where engine, component, or engine storage areas or facilities are concerned, "operating hours" means all times during which personnel are at work in the vicinity of the area or facility and have access to it.

(3) Where facilities or areas other than those covered by paragraph (g)(2) of this Section are concerned, "operating hours" means all times during which an assembly line is in operation or during which testing, maintenance, break-in procedure, production or compilation of records, or any other procedure or activity is being conducted related to certification testing, translation of designs from the test stage to the production stage, or engine manufacture or assembly.

(4) "Reasonable assistance" includes, but is not limited to, providing clerical, copying, interpretation and translation services; making personnel available upon request to inform the ARB Enforcement Officer of how the facility operates and to answer questions; and performing requested emissions tests on any engine that is being, has been, or will be used for certification testing. Such tests must be nondestructive, but may require appropriate break-in. The engine manufacturer must be compelled to cause the personal appearance of any employee at such a facility before an ARB Enforcement Officer, upon written request from the Executive Officer for the appearance of any employee of a facility, and service of such request upon the engine manufacturer. Any such employee who has been instructed by the engine manufacturer to appear will be entitled to be accompanied, represented, and advised by counsel.

§ 1054.825 What reporting and recordkeeping requirements apply under this part?

DELETE,

REPLACE WITH:

The following items illustrate the kind of reporting and recordkeeping we require for engines and equipment regulated under this part:

\* \* \* \* \*

(a) (1) DELETE.

(a) (2) DELETE.

(a) (3) DELETE.

(a) (4) DELETE.

(a) (5) DELETE.

\* \* \* \* \*

(a) (8) DELETE.

(b) DELETE.

\* \* \* \* \*

(d) DELETE.

Appendix II to Part 1054—Duty Cycles for Laboratory Testing

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