

of the Administrator, if the new engine is needed to replace an engine that has experienced catastrophic failure. The engine manufacturer must consider whether certified engines are available from its own product lineup or that of the manufacturer of the engine being replaced (if different). The engine manufacturer must keep records explaining why a certified engine was not available and make these records available upon request.

■ 189. Section 94.1106 is amended by revising the introductory text and paragraphs (a)(1), (a)(2), (c)(1), and (d) to read as follows:

§ 94.1106 Penalties.

This section specifies actions that are prohibited and the maximum civil penalties that we can assess for each violation. The maximum penalty values listed in paragraphs (a) and (c) of this section are shown for calendar year 2004. As described in paragraph (d) of this section, maximum penalty limits for later years are set forth in 40 CFR part 19.

(a) * * *

(1) A person who violates § 94.1103(a)(1), (a)(4), (a)(5), (a)(6), or (a)(7)(iv) or a manufacturer or dealer who violates § 94.1103(a)(3)(i) or (iii) or § 94.1103(a)(7) is subject to a civil penalty of not more than \$32,500 for each violation.

(2) A person other than a manufacturer or dealer who violates § 94.1103(a)(3)(i) or (iii) or § 94.1103(a)(7)(i), (ii), or (iii) or any person who violates § 94.1103(a)(3)(ii) is subject to a civil penalty of not more than \$2,750 for each violation.

* * * * *

(c) * * *

(1) Administrative penalty authority. Subject to 42 U.S.C. 7524(c), in lieu of commencing a civil action under paragraph (b) of this section, the Administrator may assess any civil penalty prescribed in paragraph (a) of this section, except that the maximum amount of penalty sought against each violator in a penalty assessment proceeding shall not exceed \$270,000, unless the Administrator and the Attorney General jointly determine that a matter involving a larger penalty amount is appropriate for administrative penalty assessment. Any such determination by the Administrator and the Attorney General is not subject to judicial review. Assessment of a civil penalty shall be by an order made on the record after opportunity for a hearing held in accordance with the procedures found at part 22 of this chapter. The Administrator may compromise, or remit, with or without

conditions, any administrative penalty which may be imposed under this section.

* * * * *

(d) The maximum penalty values listed in paragraphs (a) and (c) of this section are shown for calendar year 2004. Maximum penalty limits for later years may be adjusted based on the Consumer Price Index. The specific regulatory provisions for changing the maximum penalties, published in 40 CFR part 19, reference the applicable U.S. Code citation on which the prohibited action is based.

PART 1039—CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES

■ 190. The authority citation for part 1039 is revised to read as follows:

Authority: 42 U.S.C. 7401–7671q.

■ 191. Section 1039.1 is amended by revising paragraph (c) to read as follows:

§ 1039.1 Does this part apply for my engines?

* * * * *

(c) The definition of nonroad engine in 40 CFR 1068.30 excludes certain engines used in stationary applications. These engines are not required to comply with this part, except for the requirements in § 1039.20. In addition, if these engines are uncertified, the prohibitions in 40 CFR 1068.101 restrict their use as nonroad engines.

* * * * *

■ 192. Section 1039.5 is amended by revising paragraphs (b)(1)(iii) and (b)(2) to read as follows:

§ 1039.5 Which engines are excluded from this part's requirements?

* * * * *

(b) * * *

(1) * * *

(iii) Engines that are exempt from the standards of 40 CFR part 94 pursuant to the provisions of 40 CFR part 94 (except for the provisions of 40 CFR 94.907 or 94.912). For example, an engine that is exempt under 40 CFR 94.906 because it is a manufacturer-owned engine is not subject to the provisions of this part 1039.

* * * * *

(2) Marine engines are subject to the provisions of this part 1039 if they are exempt from 40 CFR part 94 based on the engine-dressing provisions of 40 CFR 94.907 or the common-family provisions of 40 CFR 94.912.

* * * * *

■ 193. Section 1039.10 is amended by revising the introductory text to read as follows:

§ 1039.10 How is this part organized?

The regulations in this part 1039 contain provisions that affect both engine manufacturers and others. However, the requirements of this part are generally addressed to the engine manufacturer. The term “you” generally means the engine manufacturer, as defined in § 1039.801. This part 1039 is divided into the following subparts:

* * * * *

■ 194. Section 1039.101 is amended by revising paragraph (g)(2) to read as follows:

§ 1039.101 What exhaust emission standards must my engines meet after the 2014 model year?

* * * * *

(g) * * *

(2) You may request in your application for certification that we approve a shorter useful life for an engine family. We may approve a shorter useful life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter useful life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The useful life value may not be shorter than any of the following:

- (i) 1,000 hours of operation.
(ii) Your recommended overhaul interval.
(iii) Your mechanical warranty for the engine.

* * * * *

■ 195. Section 1039.104 is amended by revising paragraph (a)(4)(iii) to read as follows:

§ 1039.104 Are there interim provisions that apply only for a limited time?

* * * * *

(a) * * *

(4) * * *

(iii) All other offset-using engines must meet the standards and other provisions that apply in model year 2011 for engines in the 19–130 kW power categories, in model year 2010 for

engines in the 130–560 kW power category, or in model year 2014 for engines above 560 kW. Show that engines meet these emission standards by meeting all the requirements of § 1068.265. You must meet the labeling requirements in § 1039.135, but add the following statement instead of the compliance statement in § 1039.135(c)(12): “THIS ENGINE MEETS U.S. EPA EMISSIONSTANDARDS UNDER 40 CFR 1039.104(a).” For power categories with a percentage phase-in, these engines should be treated as phase-in engines for purposes of determining compliance with phase-in requirements.

* * * * *

■ 196. Section 1039.120 is amended by revising paragraph (b) before the table to read as follows:

§ 1039.120 What emission-related warranty requirements apply to me?

* * * * *

(b) *Warranty period.* Your emission-related warranty must be valid for at least as long as the minimum warranty periods listed in this paragraph (b) in hours of operation and years, whichever comes first. You may offer an emission-related warranty more generous than we require. The emission-related warranty for the engine may not be shorter than any published warranty you offer without charge for the engine. Similarly, the emission-related warranty for any component may not be shorter than any published warranty you offer without charge for that component. If an engine has no hour meter, we base the warranty periods in this paragraph (b) only on the engine's age (in years). The warranty period begins when the engine is placed into service. The minimum warranty periods are shown in the following table:

* * * * *

■ 197. Section 1039.125 is amended by revising paragraph (g) introductory text to read as follows:

§ 1039.125 What maintenance instructions must I give to buyers?

* * * * *

(g) *Payment for scheduled maintenance.* Owners are responsible for properly maintaining their engines. This generally includes paying for scheduled maintenance. However, manufacturers must pay for scheduled maintenance during the useful life if it meets all the following criteria:

* * * * *

■ 198. Section 1039.130 is amended by revising paragraph (b)(3) to read as follows:

§ 1039.130 What installation instructions must I give to equipment manufacturers?

* * * * *

(b) * * *

(3) Describe the instructions needed to properly install the exhaust system and any other components. Include instructions consistent with the requirements of § 1039.205(u).

* * * * *

■ 199. Section 1039.225 is amended by revising the section heading and adding paragraphs (a)(3) and (f) to read as follows:

§ 1039.225 How do I amend my application for certification to include new or modified engines or to change an FEL?

* * * * *

(a) * * *

(3) Modify an FEL for an engine family, as described in paragraph (f) of this section.

* * * * *

(f) You may ask to change your FEL in the following cases:

(1) You may ask to raise your FEL after the start of production. You may not apply the higher FEL to engines you have already introduced into commerce. Use the appropriate FELs with corresponding sales volumes to calculate your average emission level, as described in subpart H of this part. In your request, you must demonstrate that you will still be able to comply with the applicable average emission standards as specified in subparts B and H of this part.

(2) You may ask to lower the FEL for your engine family after the start of production only when you have test data from production engines indicating that your engines comply with the lower FEL. You may create a separate subfamily with the lower FEL. Otherwise, you must use the higher FEL for the family to calculate your average emission level under subpart H of this part.

(3) If you change the FEL during production, you must include the new FEL on the emission control information label for all engines produced after the change.

■ 200. Section 1039.240 is amended by revising paragraphs (a) and (b) to read as follows:

§ 1039.240 How do I demonstrate that my engine family complies with exhaust emission standards?

(a) For purposes of certification, your engine family is considered in compliance with the applicable numerical emission standards in § 1039.101(a) and (b), § 1039.102(a) and (b), § 1039.104, and § 1039.105 if all emission-data engines representing that

family have test results showing deteriorated emission levels at or below these standards. (Note: if you participate in the ABT program in subpart H of this part, your FELs are considered to be the applicable emission standards with which you must comply.)

(b) Your engine family is deemed not to comply if any emission-data engine representing that family has test results showing a deteriorated emission level above an applicable FEL or emission standard from § 1039.101, § 1039.102, § 1039.104, or § 1039.105 for any pollutant.

* * * * *

§ 1039.260 [Removed]

■ 201. Section 1039.260 is removed.

■ 202. Section 1039.501 is amended by revising paragraph (a) to read as follows:

§ 1039.501 How do I run a valid emission test?

(a) Use the equipment and procedures for compression-ignition engines in 40 CFR part 1065 to determine whether engines meet the duty-cycle emission standards in § 1039.101(a) and (b). Measure the emissions of all the pollutants we regulate in § 1039.101 as specified in 40 CFR part 1065. Use the applicable duty cycles specified in §§ 1039.505 and 1039.510.

* * * * *

§ 1039.510 [Amended]

■ 203. Section 1039.510 is amended by removing paragraphs (c) and (d).

■ 204. Section 1039.605 is amended by revising the section heading and adding paragraph (g) to read as follows:

§ 1039.605 What provisions apply to engines certified under the motor-vehicle program?

* * * * *

(g) *Participation in averaging, banking and trading.* Engines adapted for nonroad use under this section may not generate or use emission credits under this part 1039. These engines may generate credits under the ABT provisions in 40 CFR part 86. These engines must use emission credits under 40 CFR part 86 if they are certified to an FEL that exceeds an applicable standard under 40 CFR part 86.

■ 205. Section 1039.610 is amended by revising the section heading and adding paragraph (g) to read as follows:

§ 1039.610 What provisions apply to vehicles certified under the motor-vehicle program?

* * * * *

(g) *Participation in averaging, banking and trading.* Vehicles adapted for nonroad use under this section may not generate or use emission credits under

this part 1039. These vehicles may generate credits under the ABT provisions in 40 CFR part 86. These vehicles must be included in the calculation of the applicable fleet average in 40 CFR part 86.

■ 206. Section 1039.625 is amended by revising the last entry in Table 1 and paragraph (j) to read as follows:

§ 1039.625 What requirements apply under the program for equipment-manufacturer flexibility?

- * * * * *
- (a) * * *
- (1) * * *

TABLE 1 OF § 1039.625.—GENERAL AVAILABILITY OF ALLOWANCES

Power category	Calendar years
* * * * *	* * * * *
kW > 560	2011–2017

(j) *Provisions for engine manufacturers.* As an engine manufacturer, you may produce exempted engines as needed under this section. You do not have to request this exemption for your engines, but you must have written assurance from equipment manufacturers that they need a certain number of exempted engines under this section. Send us an annual report of the engines you produce under this section, as described in § 1039.250(a). For engines produced under the provisions of paragraph (a)(2) of this section, you must certify the engines under this part 1039. For all other exempt engines, the engines must meet the emission standards in paragraph (e) of this section and you must meet all the requirements of 40 CFR 1068.265. If you show under 40 CFR 1068.265(c) that the engines are identical in all material respects to engines that you have previously certified to one or more FELs above the standards specified in paragraph (e) of this section, you must supply sufficient credits for these engines. Calculate these credits under subpart H of this part using the previously certified FELs and the alternate standards. You must meet the labeling requirements in 40 CFR 89.110, but add the following statement instead of the compliance statement in 40 CFR 89.110(b)(10):

THIS ENGINE MEETS U.S. EPA EMISSION STANDARDS UNDER 40 CFR 1039.625. SELLING OR INSTALLING THIS ENGINE FOR ANY PURPOSE OTHER THAN FOR THE EQUIPMENT FLEXIBILITY PROVISIONS OF 40 CFR 1039.625 MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

* * * * *

■ 207. Section 1039.655 is amended by revising paragraph (a)(3) to read as follows:

§ 1039.655 What special provisions apply to engines sold in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

- (a) * * *
- (3) You meet all the requirements of 40 CFR 1068.265.

■ 208. Section 1039.740 amended by adding paragraph (b)(4) to read as follows:

§ 1039.740 What restrictions apply for using emission credits?

- * * * * *
- (b) * * *
- (4) If the maximum power of an engine generating credits under the Tier 2 standards in 40 CFR part 89 is at or above 37 kW and below 75 kW, you may use those credits for certifying engines under the Option #1 standards in § 1039.102.

■ 209. Section 1039.801 is amended by revising the definitions for *Aftertreatment*, *Brake power*, *Constant-speed operation*, *Exempted*, *Good engineering judgment*, *Marine engine*, *Marine vessel*, *Maximum test speed*, *Motor vehicle*, *Revoke*, *Suspend*, *United States*, and *Void* and adding a definition for *Amphibious vehicle* to read as follows:

§ 1039.801 What definitions apply to this part?

Aftertreatment means relating to a catalytic converter, particulate filter, or any other system, component, or technology mounted downstream of the exhaust valve (or exhaust port) whose design function is to decrease emissions in the engine exhaust before it is exhausted to the environment. Exhaust-gas recirculation (EGR) and turbochargers are not aftertreatment.

Amphibious vehicle means a vehicle with wheels or tracks that is designed

primarily for operation on land and secondarily for operation in water.

Brake power means the usable power output of the engine, not including power required to fuel, lubricate, or heat the engine, circulate coolant to the engine, or to operate aftertreatment devices.

Constant-speed operation means engine operation with a governor that controls the operator input to maintain an engine at a reference speed, even under changing load. For example, an isochronous governor changes reference speed temporarily during a load change, then returns the engine to its original reference speed after the engine stabilizes. Isochronous governors typically allow speed changes up to 1.0%. Another example is a speed-droop governor, which has a fixed reference speed at zero load and allows the reference speed to decrease as load increases. With speed-droop governors, speed typically decreases (3 to 10)% below the reference speed at zero load, such that the minimum reference speed occurs near the engine's point of maximum power.

Exempted has the meaning we give in 40 CFR 1068.30.

Good engineering judgment has the meaning we give in 40 CFR 1068.30. See 40 CFR 1068.5 for the administrative process we use to evaluate good engineering judgment.

Marine engine means a nonroad engine that is installed or intended to be installed on a marine vessel. This includes a portable auxiliary marine engine only if its fueling, cooling, or exhaust system is an integral part of the vessel. There are two kinds of marine engines:

- (1) Propulsion marine engine means a marine engine that moves a vessel

through the water or directs the vessel's movement.

(2) Auxiliary marine engine means a marine engine not used for propulsion.

Marine vessel has the meaning given in 1 U.S.C. 3, except that it does not include amphibious vehicles. The definition in 1 U.S.C. 3 very broadly includes every craft capable of being used as a means of transportation on water.

* * * * *

Maximum test speed has the meaning we give in 40 CFR 1065.1001.

* * * * *
Motor vehicle has the meaning we give in 40 CFR 85.1703(a).

* * * * *
Revoke has the meaning we give in 40 CFR 1068.30.

* * * * *
Suspend has the meaning we give in 40 CFR 1068.30.

* * * * *

United States has the meaning we give in 40 CFR 1068.30.

* * * * *
Void has the meaning we give in 40 CFR 1068.30.

* * * * *
 ■ 210. Appendix VI to part 1039 is amended in the table by adding a footnote to read as follows:

Appendix VI to Part 1039—Nonroad Compression-Ignition Composite Transient Cycle

Time(s)	Normalized speed (percent)	Normalized torque (percent) ¹
*	*	*

¹ The percent torque is relative to maximum torque at the commanded engine speed.

PART 1048—CONTROL OF EMISSIONS FROM NEW, LARGE NONROAD SPARK-IGNITION ENGINES

■ 211. The authority citation for part 1048 is revised to read as follows:

Authority: 42 U.S.C. 7401—7671q.

■ 212. The heading for subpart A is revised to read as follows:

Subpart A—Overview and Applicability

■ 213. Section 1048.1 is revised to read as follows:

§ 1048.1 Does this part apply to me?

(a) The regulations in this part 1048 apply for all new, spark-ignition nonroad engines (defined in § 1048.801) with maximum engine power above 19 kW, except as provided in § 1048.5.

(b) This part 1048 applies for engines built on or after January 1, 2004. You need not follow this part for engines you produce before January 1, 2004. *See* §§ 1048.101 through 1048.115, § 1048.145, and the definition of model year in § 1048.801 for more information about the timing of new requirements.

(c) The definition of nonroad engine in 40 CFR 1068.30 excludes certain engines used in stationary applications. These engines are not required to comply with this part, except for the requirements in § 1048.20. In addition, if these engines are uncertified, the prohibitions in 40 CFR 1068.101 restrict their use as nonroad engines.

(d) In certain cases, the regulations in this part 1048 apply to engines with maximum engine power at or below 19 kW that would otherwise be covered by 40 CFR part 90. *See* 40 CFR 90.913 for provisions related to this allowance.

■ 214. Section 1048.5 is revised to read as follows:

§ 1048.5 Which engines are excluded from this part's requirements?

This part does not apply to the following nonroad engines:

(a) Engines that are certified to meet the requirements of 40 CFR part 1051, or are otherwise subject to 40 CFR part 1051 (for example, engines used in snowmobiles and all-terrain vehicles).

(b) *Propulsion marine engines.* *See* 40 CFR part 91. This part applies with respect to auxiliary marine engines.

■ 215. Section 1048.10 is revised to read as follows:

§ 1048.10 How is this part organized?

The regulations in this part 1048 contain provisions that affect both engine manufacturers and others. However, the requirements of this part are generally addressed to the engine manufacturer. The term “you” generally means the engine manufacturer, as defined in § 1048.801. This part 1048 is divided into the following subparts:

(a) Subpart A of this part defines the applicability of part 1048 and gives an overview of regulatory requirements.

(b) Subpart B of this part describes the emission standards and other requirements that must be met to certify engines under this part. Note that § 1048.145 discusses certain interim requirements and compliance provisions that apply only for a limited time.

(c) Subpart C of this part describes how to apply for a certificate of conformity.

(d) Subpart D of this part describes general provisions for testing production-line engines.

(e) Subpart E of this part describes general provisions for testing in-use engines.

(f) Subpart F of this part describes how to test your engines (including

references to other parts of the Code of Federal Regulations).

(g) Subpart G of this part and 40 CFR part 1068 describe requirements, prohibitions, and other provisions that apply to engine manufacturers, equipment manufacturers, owners, operators, rebuilders, and all others.

(h) [Reserved]

(i) Subpart I of this part contains definitions and other reference information.

■ 216. Section 1048.15 is revised to read as follows:

§ 1048.15 Do any other regulation parts affect me?

(a) Part 1065 of this chapter describes procedures and equipment specifications for testing engines. Subpart F of this part 1048 describes how to apply the provisions of part 1065 of this chapter to determine whether engines meet the emission standards in this part.

(b) The requirements and prohibitions of part 1068 of this chapter apply to everyone, including anyone who manufactures, imports, installs, owns, operates, or rebuilds any of the engines subject to this part 1048, or equipment containing these engines. Part 1068 of this chapter describes general provisions, including these seven areas:

- (1) Prohibited acts and penalties for engine manufacturers, equipment manufacturers, and others.
 - (2) Rebuilding and other aftermarket changes.
 - (3) Exclusions and exemptions for certain engines.
 - (4) Importing engines.
 - (5) Selective enforcement audits of your production.
 - (6) Defect reporting and recall.
 - (7) Procedures for hearings.
- (c) Other parts of this chapter apply if referenced in this part.

■ 217. Section 1048.20 is revised to read as follows:

§ 1048.20 What requirements from this part apply to excluded stationary engines?

(a) You must add a permanent label or tag to each new engine you produce or import that is excluded under § 1048.1(c) as a stationary engine. To meet labeling requirements, you must do the following things:

- (1) Attach the label or tag in one piece so no one can remove it without destroying or defacing it.
- (2) Secure it to a part of the engine needed for normal operation and not normally requiring replacement.
- (3) Make sure it is durable and readable for the engine's entire life.
- (4) Write it in English.
- (5) Follow the requirements in § 1048.135(g) regarding duplicate labels if the engine label is obscured in the final installation.

(b) Engine labels or tags required under this section must have the following information:

(1) Include the heading "EMISSION CONTROL INFORMATION".

(2) Include your full corporate name and trademark. You may instead include the full corporate name and trademark of another company you choose to designate.

(3) State the engine displacement (in liters) and maximum engine power.

(4) State: "THIS ENGINE IS EXCLUDED FROM THE REQUIREMENTS OF 40 CFR PART 1048 AS A "STATIONARY ENGINE." INSTALLING OR USING THIS ENGINE IN ANY OTHER APPLICATION MAY

BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY."

■ 218. Section 1048.101 is amended by revising the introductory text and paragraphs (a), (b), (c), (e), (g), and (h) to read as follows:

§ 1048.101 What exhaust emission standards must my engines meet?

The exhaust emission standards of this section apply by model year. You may certify engines earlier than we require. The Tier 1 standards apply only to steady-state testing, as described in paragraph (b) of this section. The Tier 2 standards apply to steady-state, transient, and field testing, as described in paragraphs (a), (b), and (c) of this section.

(a) *Emission standards for transient testing.* Starting in the 2007 model year, transient exhaust emissions from your engines may not exceed the Tier 2 emission standards, as follows:

(1) Measure emissions using the applicable transient test procedures described in subpart F of this part.

(2) The Tier 2 HC+NO_x standard is 2.7 g/kW-hr and the Tier 2 CO standard is 4.4 g/kW-hr. For severe-duty engines, the Tier 2 HC+NO_x standard is 2.7 g/kW-hr and the Tier 2 CO standard is 130.0 g/kW-hr. The following engines are not subject to the transient standards in this paragraph (a):

- (i) High-load engines.
- (ii) Engines with maximum engine power above 560 kW.
- (iii) Engines with maximum test speed above 3400 rpm.

(3) You may optionally certify your engines according to the following

formula instead of the standards in paragraph (a)(1) of this section: $(HC+NO_x) \times CO^{0.784} \leq 8.57$. The HC+NO_x and CO emission levels you select to satisfy this formula, rounded to the nearest 0.1 g/kW-hr, become the emission standards that apply for those engines. You may not select an HC+NO_x emission standard higher than 2.7 g/kW-hr or a CO emission standard higher than 20.6 g/kW-hr. The following table illustrates a range of possible values under this paragraph (a)(3):

TABLE 1 OF § 1048.101.—EXAMPLES OF POSSIBLE TIER 2 DUTY-CYCLE EMISSION STANDARDS

HC+NO _x (g/kW-hr)	CO (g/kW-hr)
2.7	4.4
2.2	5.6
1.7	7.9
1.3	11.1
1.0	15.5
0.8	20.6

(b) *Standards for steady-state testing.* Except as we allow in paragraph (d) of this section, steady-state exhaust emissions from your engines may not exceed emission standards, as follows:

(1) Measure emissions using the applicable steady-state test procedures described in subpart F of this part:

(2) The following table shows the Tier 1 exhaust emission standards that apply to engines from 2004 through 2006 model years:

TABLE 2 OF § 1048.101.—TIER 1 EMISSION STANDARDS (G/KW-HR)

Testing	General emission standards		Alternate emission standards for severe-duty engines	
	HC+NO _x	CO	HC+NO _x	CO
Certification and production-line testing	4.0	50.0	4.0	130.0
In-use testing	5.4	50.0	5.4	130.0

(3) Starting in the 2007 model year, steady-state exhaust emissions from your engines may not exceed the numerical emission standards in paragraph (a) of this section. See paragraph (d) of this section for alternate standards that apply for certain engines.

(c) *Standards for field testing.* Starting in 2007, exhaust emissions may not exceed field-testing standards, as follows:

(1) Measure emissions using the field-testing procedures in subpart F of this part:

(2) The HC+NO_x standard is 3.8 g/kW-hr and the CO standard is 6.5 g/kW-hr. For severe-duty engines, the HC+NO_x standard is 3.8 g/kW-hr and the CO standard is 200.0 g/kW-hr. For natural gas-fueled engines, you are not required to measure nonmethane hydrocarbon emissions or total hydrocarbon emissions for testing to show that the engine meets the emission standards of this paragraph (c); that is, you may assume HC emissions are equal to zero.

(3) You may apply the following formula to determine alternate emission

standards that apply to your engines instead of the standards in paragraph (c)(1) of this section: $(HC+NO_x) \times CO^{0.791} \leq 16.78$. HC+NO_x emission levels may not exceed 3.8 g/kW-hr and CO emission levels may not exceed 31.0 g/kW-hr. The following table illustrates a range of possible values under this paragraph (c)(2):

TABLE 3 OF § 1048.101.—EXAMPLES OF POSSIBLE TIER 2 FIELD-TESTING EMISSION STANDARDS

HC+NO _x (g/kW-hr)	CO (g/kW-hr)
3.8	6.5
3.1	8.5
2.4	11.7
1.8	16.8
1.4	23.1
1.1	31.0

* * * * *

(e) *Fuel types.* The exhaust emission standards in this section apply for engines using each type of fuel specified in 40 CFR part 1065, subpart H, on which the engines in the engine family are designed to operate, except for engines certified under § 1048.625. For engines certified under § 1048.625, the standards of this section apply to emissions measured using the specified test fuel. You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for engines powered by the following fuels:

- (1) Gasoline- and LPG-fueled engines: THC emissions.
- (2) Natural gas-fueled engines: NMHC emissions.
- (3) Alcohol-fueled engines: THCE emissions.

* * * * *

(g) *Useful life.* Your engines must meet the exhaust emission standards in paragraphs (a) through (c) of this section over their full useful life. For severe-duty engines, the minimum useful life is 1,500 hours of operation or seven years, whichever comes first. For all other engines, the minimum useful life is 5,000 hours of operation or seven years, whichever comes first.

(1) Specify a longer useful life in hours for an engine family under either of two conditions:

(i) If you design, advertise, or market your engine to operate longer than the minimum useful life (your recommended hours until rebuild may indicate a longer design life).

(ii) If your basic mechanical warranty is longer than the minimum useful life.

(2) You may request in your application for certification that we approve a shorter useful life for an engine family. We may approve a shorter useful life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter useful life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include

documentation from such in-use engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The useful life value may not be shorter than any of the following:

- (i) 1,000 hours of operation.
- (ii) Your recommended overhaul interval.
- (iii) Your mechanical warranty for the engine.

(h) *Applicability for testing.* The emission standards in this subpart apply to all testing, including certification, production-line, and in-use testing. For production-line testing, you must perform duty-cycle testing as specified in §§ 1048.505 and 1048.510. The field-testing standards of this section apply for those tests. You need not do additional testing of production-line engines to show that your engines meet the field-testing standards.

■ 219. Section 1048.105 is amended by revising the section heading and adding introductory text to read as follows:

§ 1048.105 What evaporative emission standards and requirements apply?

The requirements of this section apply to all engines that are subject to this part, except auxiliary marine engines.

* * * * *

■ 220. Section 1048.115 is amended by removing and reserving paragraph (d) and revising the introductory text and paragraphs (a), (b), (e), and (g) to read as follows:

§ 1048.115 What other requirements must my engines meet?

Engines subject to this part must meet the following requirements:

(a) *Crankcase emissions.* Crankcase emissions may not be discharged directly into the ambient atmosphere from any engine throughout its useful life, except as follows:

(1) Engines may discharge crankcase emissions to the ambient atmosphere if the emissions are added to the exhaust emissions (either physically or mathematically) during all emission testing. If you take advantage of this exception, you must do the following things:

- (i) Manufacture the engines so that all crankcase emissions can be routed into

the applicable sampling systems specified in 40 CFR part 1065.

(ii) Account for deterioration in crankcase emissions when determining exhaust deterioration factors.

(2) For purposes of this paragraph (a), crankcase emissions that are routed to the exhaust upstream of exhaust aftertreatment during all operation are not considered to be discharged directly into the ambient atmosphere.

(b) *Torque broadcasting.* Electronically controlled engines must broadcast their speed and output shaft torque (in newton-meters). Engines may alternatively broadcast a surrogate value for determining torque. Engines must broadcast engine parameters such that they can be read with a remote device, or broadcast them directly to their controller area networks. This information is necessary for testing engines in the field (see § 1048.515). This requirement applies beginning in the 2007 model year. Small-volume engine manufacturers may omit this requirement.

* * * * *

(e) *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 range during any testing, including certification testing, selective enforcement auditing, or in-use testing.

* * * * *

(g) *Defeat devices.* You may not equip your engines with a defeat device. A defeat device is an auxiliary emission-control device that reduces the effectiveness of emission controls under conditions that the engine may reasonably be expected to encounter during normal operation and use. This does not apply to auxiliary-emission control devices you identify in your certification application if any of the following is true:

(1) The conditions of concern were substantially included in the applicable test procedures described in subpart F of this part.

(2) You show your design is necessary to prevent engine (or equipment) damage or accidents.

(3) The reduced effectiveness applies only to starting the engine.

■ 221. Section 1048.120 is revised to read as follows:

§ 1048.120 What emission-related warranty requirements apply to me?

(a) *General requirements.* You must warrant to the ultimate purchaser and each subsequent purchaser that the new nonroad engine, including all parts of its emission-control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this part.

(2) It is free from defects in materials and workmanship that may keep it from meeting these requirements.

(b) *Warranty period.* Your emission-related warranty must be valid for at least 50 percent of the engine's useful life in hours of operation or at least three years, whichever comes first. In the case of a high-cost warranted part, the warranty must be valid for at least 70 percent of the engine's useful life in hours of operation or at least five years, whichever comes first. You may offer an emission-related warranty more generous than we require. The emission-related warranty for the engine may not be shorter than any published warranty you offer without charge for the engine. Similarly, the emission-related warranty for any component may not be shorter than any published warranty you offer without charge for that component. If an engine has no hour meter, we base the warranty periods in this paragraph (b) only on the engine's age (in years). The warranty period begins when the engine is placed into service.

(c) *Components covered.* The emission-related warranty covers all components whose failure would increase an engine's emissions of any pollutant. This includes components listed in 40 CFR part 1068, Appendix I, 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 pollutant.

(d) *Limited applicability.* You may deny warranty claims under this section if the operator caused the problem through improper maintenance or use, as described in 40 CFR 1068.115.

(e) *Owners manual.* Describe in the owners manual the emission-related warranty provisions from this section that apply to the engine.

■ 222. Section 1048.125 is revised to read as follows:

§ 1048.125 What maintenance instructions must I give to buyers?

Give the ultimate purchaser of each new nonroad engine written instructions for properly maintaining and using the engine, including the emission-control system. The maintenance instructions also apply to service accumulation on your emission-data engines, as described in 40 CFR part 1065.

(a) *Critical emission-related maintenance.* Critical emission-related maintenance includes any adjustment, cleaning, repair, or replacement of critical emission-related components. This may also include additional emission-related maintenance that you determine is critical if we approve it in advance. You may schedule critical emission-related maintenance on these components if you meet the following conditions:

(1) You demonstrate that the maintenance is reasonably likely to be done at the recommended intervals on in-use engines. We will accept scheduled maintenance as reasonably likely to occur if you satisfy any of the following conditions:

(i) You present data showing that, if a lack of maintenance increases emissions, it also unacceptably degrades the engine's performance.

(ii) You present survey data showing that at least 80 percent of engines in the field get the maintenance you specify at the recommended intervals.

(iii) You provide the maintenance free of charge and clearly say so in maintenance instructions for the customer.

(iv) You otherwise show us that the maintenance is reasonably likely to be done at the recommended intervals.

(2) You may not schedule critical emission-related maintenance more frequently than the following minimum intervals, except as specified in paragraphs (a)(3),

(b) and (c) of this section:

(i) For catalysts, fuel injectors, electronic control units, superchargers, and turbochargers: The useful life of the engine family.

(ii) For gaseous fuel-system components (cleaning without disassembly only) and oxygen sensors: 2,500 hours.

(3) If your engine family has an alternate useful life under § 1048.101(g) that is shorter than the period specified in paragraph (a)(2)(ii) of this section, you may not schedule critical emission-related maintenance more frequently than the alternate useful life, except as specified in paragraph (c) of this section.

(b) *Recommended additional maintenance.* You may recommend any additional amount of maintenance on the components listed in paragraph (a) of this section, as long as you state clearly that these maintenance steps are not necessary to keep the emission-related warranty valid. If operators do the maintenance specified in paragraph (a) of this section, but not the recommended additional maintenance, this does not allow you to disqualify those engines from in-use testing or deny a warranty claim. Do not take these maintenance steps during service accumulation on your emission-data engines.

(c) *Special maintenance.* You may specify more frequent maintenance to address problems related to special situations, such as substandard fuel or atypical engine operation. For example, you may specify more frequent cleaning of fuel system components for engines you have reason to believe will be using fuel that causes substantially more engine performance problems than commercial fuels of the same type that are generally available across the United States. You must clearly state that this additional maintenance is associated with the special situation you are addressing.

(d) *Noncritical emission-related maintenance.* You may schedule any amount of emission-related inspection or maintenance that is not covered by paragraph (a) of this section, as long as you state in the owners 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.

(e) *Maintenance that is not emission-related.* For maintenance unrelated to emission controls, you may schedule any amount of inspection or maintenance. You may also take these inspection or maintenance steps during service accumulation on your emission-data engines, as long as they are reasonable and technologically necessary. This might include adding engine oil, changing air, fuel, or oil filters, servicing engine-cooling systems, and adjusting idle speed, governor, engine bolt torque, valve lash, or injector lash. You may perform this nonemission-related maintenance on emission-data engines at the least frequent intervals that you recommend to the ultimate purchaser (but not the intervals recommended for severe service).

(f) *Source of parts and repairs.* State clearly on the first page of your written maintenance instructions that a repair shop or person of the owner's choosing may maintain, replace, or repair emission-control devices and systems. Your instructions may not require components or service identified by brand, trade, or corporate name. Also, do not directly or indirectly condition your warranty on a requirement that the engine be serviced by your franchised dealers or any other service establishments with which you have a commercial relationship. You may disregard the requirements in this paragraph (f) if you do one of two things:

(1) Provide a component or service without charge under the purchase agreement.

(2) Get us to waive this prohibition in the public's interest by convincing us the engine will work properly only with the identified component or service.

(g) *Payment for scheduled maintenance.* Owners are responsible for properly maintaining their engines. This generally includes paying for scheduled maintenance. However, manufacturers must pay for scheduled maintenance during the useful life if it meets all the following criteria:

(1) Each affected component was not in general use on similar engines before January 1, 2004.

(2) The primary function of each affected component is to reduce emissions.

(3) The cost of the scheduled maintenance is more than 2 percent of the price of the engine.

(4) Failure to perform the maintenance would not cause clear problems that would significantly degrade the engine's performance.

(h) *Owners manual.* Explain the owner's responsibility for proper maintenance in the owners manual.

■ 223. Section 1048.130 is amended by revising paragraphs (a), (b)(3), (b)(7), and (b)(8); and adding paragraph (d) to read as follows:

§ 1048.130 What installation instructions must I give to equipment manufacturers?

(a) If you sell an engine for someone else to install in a piece of nonroad equipment, give the engine installer instructions for installing it consistent with the requirements of this part. Include all information necessary to ensure that an engine will be installed in its certified configuration.

(b) * * *

(3) Describe the instructions needed to properly install the exhaust system and any other components. Include

instructions consistent with the requirements of § 1048.205(v).

* * * * *

(7) Describe any other instructions to make sure the installed engine will operate according to design specifications in your application for certification. This may include, for example, instructions for installing aftertreatment devices when installing the engines.

(8) 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 40 CFR 1068.105."

* * * * *

(d) Provide instructions in writing or in an equivalent format. For example, you may post instructions on a publicly available Web site for downloading or printing. If you do not provide the instructions in writing, explain in your application for certification how you will ensure that each installer is informed of the installation requirements.

■ 224. Section 1048.135 is revised to read as follows:

§ 1048.135 How must I label and identify the engines I produce?

(a) Assign each engine a unique identification number and permanently affix, engrave, or stamp it on the engine in a legible way.

(b) At the time of manufacture, affix a permanent and legible label identifying each engine. The label must be—

(1) Attached in one piece so it is not removable without being destroyed or defaced.

(2) Secured to a part of the engine needed for normal operation and not normally requiring replacement.

(3) Durable and readable for the engine's entire life.

(4) Written in English.

(c) The label must—

(1) Include the heading "EMISSION CONTROL INFORMATION".

(2) Include your full corporate name and trademark. You may identify another company and use its trademark instead of yours if you comply with the provisions of § 1048.635.

(3) Include EPA's standardized designation for the engine family (and subfamily, where applicable).

(4) State the engine's displacement (in liters); however, you may omit this from the label if all the engines in the engine family have the same per-cylinder displacement and total displacement.

(5) State the date of manufacture [MONTH and YEAR]. You may omit

this from the label if you keep a record of the engine-manufacture dates and provide it to us upon request.

(6) Identify the emission-control system. Use terms and abbreviations consistent with SAE J1930 (incorporated by reference in § 1048.810). You may omit this information from the label if there is not enough room for it and you put it in the owners manual instead.

(7) State: "THIS ENGINE IS CERTIFIED TO OPERATE ON [specify operating fuel or fuels]."

(8) Identify any requirements for fuel and lubricants. You may omit this information from the label if there is not enough room for it and you put it in the owners manual instead.

(9) List specifications and adjustments for engine tuneups; show the proper position for the transmission during tuneup and state which accessories should be operating. You may omit this information from the label if there is not enough room for it and you put it in the owners manual instead.

(10) State the useful life for your engine family if it has a longer useful life under § 1048.101(g)(1) or a shortened useful life under § 1048.101(g)(2).

(11) Identify the emission standards to which you have certified the engine.

(12) State: "THIS ENGINE COMPLIES WITH U.S. EPA REGULATIONS FOR [MODEL YEAR] LARGE NONROAD SI ENGINES."

(13) If your engines are certified only for constant-speed operation, state: "USE IN CONSTANT-SPEED APPLICATIONS ONLY".

(14) If your engines are certified only for variable-speed operation, state: "USE IN VARIABLE-SPEED APPLICATIONS ONLY".

(15) If your engines are certified only for high-load engines, state: "THIS ENGINE IS NOT INTENDED FOR OPERATION AT LESS THAN 75 PERCENT OF FULL LOAD."

(16) If you certify your engines under § 1048.101(d) (and show in your application for certification that in-use engines will experience infrequent high-load operation), state: "THIS ENGINE IS NOT INTENDED FOR OPERATION AT MORE THAN ___ PERCENT OF FULL LOAD.". Specify the appropriate percentage of full load based on the nature of the engine protection. You may add other statements to discourage operation in engine-protection modes.

(17) If your engines are certified to the voluntary standards in § 1048.140, state: "BLUE SKY SERIES".

(d) You may add information to the emission control information label to identify other emission standards that the engine meets or does not meet (such

as California standards). You may also add other information to ensure that the engine will be properly maintained and used.

(e) You may ask us to approve modified labeling requirements in this part 1048 if you show that it is necessary or appropriate. We will approve your request if your alternate label is consistent with the requirements of this part.

(f) If you obscure the engine label while installing the engine in the equipment such that the label will be hard to read during normal

maintenance, you must place a duplicate label on the equipment. If others install your engine in their equipment in a way that obscures the engine label, we require them to add a duplicate label on the equipment (see 40 CFR 1068.105); in that case, give them the number of duplicate labels they request and keep the following records for at least five years:

- (1) Written documentation of the request from the equipment manufacturer.
- (2) The number of duplicate labels you send and the date you sent them.

■ 225. Section 1048.140 is amended by revising paragraph (c) to read as follows:

§ 1048.140 What are the provisions for certifying Blue Sky Series engines?

* * * * *

(c) For any model year, to receive a certificate of conformity as a “Blue Sky Series” engine family must meet all the requirements in this part while certifying to one of the sets of exhaust emission standards in the following table:

TABLE 1 OF § 1048.140.—LONG-TERM STANDARDS FOR BLUE SKY SERIES ENGINES (G/KW-HR)

Standards for steady-state and transient test procedures		Standards for field-testing procedures	
HC+NO _x	CO	HC+NO _x	CO
0.80	4.4	1.10	6.6
0.60	4.4	0.84	6.6
0.40	4.4	0.56	6.6
0.20	4.4	0.28	6.6
0.10	4.4	0.14	6.6

* * * * *

■ 226. Section 1048.145 is amended by revising the section heading and paragraph (a) and removing and reserving paragraph(c) to read as follows:

§ 1048.145 Are there interim provisions that apply only for a limited time?

* * * * *

(a) *Family banking.* This paragraph (a) allows you to reduce the number of engines subject to the Tier 2 standards by certifying some of your engines earlier than otherwise required, as follows:

(1) For early-compliant engines to generate offsets under this paragraph (a), you must meet the following general provisions:

- (i) You must begin actual production of early-compliant engines by September 1, 2006.
- (ii) Engines you produce after December 31, 2006 may not generate offsets.
- (iii) Offset-generating engines must be certified to the Tier 2 standards and requirements under this part 1048.
- (iv) If you certify engines under the voluntary standards of § 1048.140, you may not use them in your calculation under this paragraph (a).

(2) For every offset-generating engine certified to the Tier 2 standards, you may reduce the number of engines with the same maximum engine power that are required to meet the Tier 2 standards in later model years by one engine. You may calculate power-weighted offsets based on actual U.S.-directed sales volumes. For example, if you produce a

total of 1,000 engines in 2005 and 2006 with an average maximum power of 60 kW certified to the Tier 2 standards, you may delay certification to that tier of standards for up to 60,000 kW-engine-years in any of the following ways:

- (i) Delay certification of up to 600 engines with an average maximum power of 100 kW for one model year.
- (ii) Delay certification of up to 200 engines with an average maximum power of 100 kW for three consecutive model years.
- (iii) Delay certification of up to 400 engines with an average maximum power of 100 kW for one model year and up to 50 engines with an average maximum power of 200 kW for two model years.
- (3) Offset-using engines (that is, those not required to certify to the Tier 2 standards) must be certified to the Tier 1 standards and requirements of this part 1048. You may delay compliance for up to three model years.
- (4) By January 31 of each year in which you use the provisions of this paragraph (a), send us a report describing how many offset-generating or offset-using engines you produced in the preceding model year.

* * * * *

■ 227. Section 1048.201 is revised to read as follows:

§ 1048.201 What are the general requirements for obtaining a certificate of conformity?

(a) You must send us a separate application for a certificate of conformity for each engine family. A

certificate of conformity is valid from the indicated effective date until December 31 of the model year for which it is issued.

(b) The application must contain all the information required by this part and must not include false or incomplete statements or information (see § 1048.255).

(c) We may ask you to include less information than we specify in this subpart, as long as you maintain all the information required by § 1048.250.

(d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) See § 1048.255 for provisions describing how we will process your application.

(g) We may require you to deliver your test engines to a facility we designate for our testing (see § 1048.235(c)).

■ 228. Section 1048.205 is revised to read as follows:

§ 1048.205 What must I include in my application?

This section specifies the information that must be in your application, unless we ask you to include less information under § 1048.201(c). We may require you to provide additional information to evaluate your application.

(a) Describe the engine family’s specifications and other basic parameters of the engine’s design and emission controls. List the fuel types on

which your engines are designed to operate (for example, gasoline and natural gas). List each distinguishable engine configuration in the engine family.

(b) Explain how the emission-control system operates. Describe in detail all system components for controlling exhaust emissions, including all auxiliary-emission control devices (AECs) and all fuel-system components you will install on any production or test engine. Describe the evaporative emission controls. Identify the part number of each component you describe. For this paragraph (b), treat as separate AECs any devices that modulate or activate differently from each other. Include all the following:

(1) Give a general overview of the engine, the emission-control strategies, and all AECs.

(2) Describe each AEC's general purpose and function.

(3) Identify the parameters that each AEC senses (including measuring, estimating, calculating, or empirically deriving the values). Include equipment-based parameters and state whether you simulate them during testing with the applicable procedures.

(4) Describe the purpose for sensing each parameter.

(5) Identify the location of each sensor the AEC uses.

(6) Identify the threshold values for the sensed parameters that activate the AEC.

(7) Describe the parameters that the AEC modulates (controls) in response to any sensed parameters, including the range of modulation for each parameter, the relationship between the sensed parameters and the controlled parameters and how the modulation achieves the AEC's stated purpose. Use graphs and tables, as necessary.

(8) Describe each AEC's specific calibration details. This may be in the form of data tables, graphical representations, or some other description.

(9) Describe the hierarchy among the AECs when multiple AECs sense or modulate the same parameter. Describe whether the strategies interact in a comparative or additive manner and identify which AEC takes precedence in responding, if applicable.

(10) Explain the extent to which the AEC is included in the applicable test procedures specified in subpart F of this part.

(11) Do the following additional things for AECs designed to protect engines or equipment:

(i) Identify the engine and/or equipment design limits that make protection necessary and describe any

damage that would occur without the AEC.

(ii) Describe how each sensed parameter relates to the protected components' design limits or those operating conditions that cause the need for protection.

(iii) Describe the relationship between the design limits/parameters being protected and the parameters sensed or calculated as surrogates for those design limits/parameters, if applicable.

(iv) Describe how the modulation by the AEC prevents engines and/or equipment from exceeding design limits.

(v) Explain why it is necessary to estimate any parameters instead of measuring them directly and describe how the AEC calculates the estimated value, if applicable.

(vi) Describe how you calibrate the AEC modulation to activate only during conditions related to the stated need to protect components and only as needed to sufficiently protect those components in a way that minimizes the emission impact.

(c) Explain how the engine diagnostic system works, describing especially the engine conditions (with the corresponding diagnostic trouble codes) that cause the malfunction-indicator light to go on. Propose what you consider to be extreme conditions under which the diagnostic system should disregard trouble codes, as described in § 1048.110.

(d) Describe the engines you selected for testing and the reasons for selecting them.

(e) Describe the test equipment and procedures that you used, including any special or alternate test procedures you used (see § 1048.501).

(f) Describe how you operated the emission-data engine before testing, including the duty cycle and the number of engine operating hours used to stabilize emission levels. Explain why you selected the method of service accumulation. Describe any scheduled maintenance you did.

(g) List the specifications of each test fuel to show that it falls within the required ranges we specify in 40 CFR part 1065, subpart H.

(h) Identify the engine family's useful life.

(i) Include the maintenance instructions you will give to the ultimate purchaser of each new nonroad engine (see § 1048.125).

(j) Include the emission-related installation instructions you will provide if someone else installs your engines in a piece of nonroad equipment (see § 1048.130).

(k) Identify each high-cost warranted part and show us how you calculated its replacement cost, including the estimated retail cost of the part, labor rates, and labor hours to diagnose and replace defective parts.

(l) Describe your emission control information label (see § 1048.135).

(m) Identify the emission standards to which you are certifying engines in the engine family.

(n) Identify the engine family's deterioration factors and describe how you developed them (see § 1048.240). Present any emission test data you used for this.

(o) State that you operated your emission-data engines as described in the application (including the test procedures, test parameters, and test fuels) to show you meet the requirements of this part.

(p) Present emission data to show that you meet emission standards, as follows:

(1) Present exhaust emission data for HC, NO_x, and CO on an emission-data engine to show your engines meet the applicable duty-cycle emission standards we specify in § 1048.101. Show emission figures before and after applying adjustment factors for deterioration factors for each engine. Include test data for each type of fuel from 40 CFR part 1065, subpart H, on which you intend for engines in the engine family to operate (for example, gasoline, liquefied petroleum gas, methanol, or natural gas). If we specify more than one grade of any fuel type (for example, a summer grade and winter grade of gasoline), you only need to submit test data for one grade, unless the regulations of this part specify otherwise for your engine. Note that § 1048.235 allows you to submit an application in certain cases without new emission data.

(2) If your engine family includes a volatile liquid fuel (and you do not use design-based certification under § 1048.245), present evaporative test data to show your vehicles meet the evaporative emission standards we specify in subpart B of this part. Show these figures before and after applying deterioration factors, where applicable.

(q) State that all the engines in the engine family comply with the field-testing emission standards we specify in § 1048.104 for all normal operation and use when tested as specified in § 1048.515. Describe any relevant testing, engineering analysis, or other information in sufficient detail to support your statement.

(r) For engines with maximum engine power above 560 kW, include information showing how your emission

controls will function during normal in-use transient operation. For example, this might include the following:

(1) Emission data from transient testing of engines using measurement systems designed for measuring in-use emissions.

(2) Comparison of the engine design for controlling transient emissions with that from engines for which you have emission data over the transient duty cycle for certification.

(3) Detailed descriptions of control algorithms and other design parameters for controlling transient emissions.

(s) Report all test results, including those from invalid tests or from any other tests, whether or not they were conducted according to the test procedures of subpart F of this part. If you measure CO₂, report those emission levels. We may ask you to send other information to confirm that your tests were valid under the requirements of this part and 40 CFR part 1065.

(t) Describe all adjustable operating parameters (see § 1048.115(e)), including production tolerances. Include the following in your description of each parameter:

(1) The nominal or recommended setting.

(2) The intended physically adjustable range.

(3) The limits or stops used to establish adjustable ranges.

(4) Information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside your intended physically adjustable ranges.

(u) Provide the information to read, record, and interpret all the information broadcast by an engine's onboard computers and electronic control units. State that, upon request, you will give us any hardware, software, or tools we would need to do this. If you broadcast a surrogate parameter for torque values, you must provide us what we need to convert these into torque units. You may reference any appropriate publicly released standards that define conventions for these messages and parameters. Format your information consistent with publicly released standards.

(v) Confirm that your emission-related installation instructions specify how to ensure that sampling of exhaust emissions will be possible after engines are installed in equipment and placed in service. If this cannot be done by simply adding a 20-centimeter extension to the exhaust pipe, show how to sample exhaust emissions in a way that prevents diluting the exhaust sample with ambient air.

(w) State whether your engine will operate in variable-speed applications, constant-speed applications, or both. If your certification covers only constant-speed or only variable-speed applications, describe how you will prevent use of these engines in applications for which they are not certified.

(x) Unconditionally certify that all the engines in the engine family comply with the requirements of this part, other referenced parts of the CFR, and the Clean Air Act.

(y) Include estimates of U.S.-directed production volumes.

(z) Include other applicable information, such as information specified in this part or part 1068 of this chapter related to requests for exemptions.

(aa) Name an agent for service of process located in the United States. Service on this agent constitutes service on you or any of your officers or employees for any action by EPA or otherwise by the United States related to the requirements of this part.

■ 229. Section 1048.210 is revised to read as follows:

§ 1048.210 May I get preliminary approval before I complete my application?

If you send us information before you finish the application, we will review it and make any appropriate determinations, especially for questions related to engine family definitions, auxiliary emission-control devices, deterioration factors, testing for service accumulation, and maintenance. Decisions made under this section are considered to be preliminary approval, subject to final review and approval. We will generally not reverse a decision where we have given you preliminary approval, unless we find new information supporting a different decision. If you request preliminary approval related to the upcoming model year or the model year after that, we will make best-efforts to make the appropriate determinations as soon as practicable. We will generally not provide preliminary approval related to a future model year more than two years ahead of time.

§ 1048.215 [Removed]

■ 230. Section 1048.215 is removed.

■ 231. Section 1048.220 is revised to read as follows:

§ 1048.220 How do I amend the maintenance instructions in my application?

You may amend your emission-related maintenance instructions after you submit your application for certification, as long as the amended

instructions remain consistent with the provisions of § 1048.125. You must send the Designated Compliance Officer a request to amend your application for certification for an engine family if you want to change the emission-related maintenance instructions in a way that could affect emissions. In your request, describe the proposed changes to the maintenance instructions. We will disapprove your request if we determine that the amended instructions are inconsistent with maintenance you performed on emission-data engines.

(a) If you are decreasing the specified maintenance, you may distribute the new maintenance instructions to your customers 30 days after we receive your request, unless we disapprove your request. We may approve a shorter time or waive this requirement.

(b) If your requested change would not decrease the specified maintenance, you may distribute the new maintenance instructions anytime after you send your request. For example, this paragraph (b) would cover adding instructions to increase the frequency of a maintenance step for engines in severe-duty applications.

(c) You need not request approval if you are making only minor corrections (such as correcting typographical mistakes), clarifying your maintenance instructions, or changing instructions for maintenance unrelated to emission control.

■ 232. Section 1048.225 is revised to read as follows:

§ 1048.225 How do I amend my application for certification to include new or modified engines?

Before we issue you a certificate of conformity, you may amend your application to include new or modified engine configurations, subject to the provisions of this section. After we have issued your certificate of conformity, you may send us an amended application requesting that we include new or modified engine configurations within the scope of the certificate, subject to the provisions of this section. You must amend your application if any changes occur with respect to any information included in your application.

(a) You must amend your application before you take either of the following actions:

(1) Add an engine (that is, an additional engine configuration) to an engine family. In this case, the engine added must be consistent with other engines in the engine family with respect to the criteria listed in § 1048.230.

(2) Change an engine already included in an engine family in a way that may affect emissions, or change any of the components you described in your application for certification. This includes production and design changes that may affect emissions any time during the engine's lifetime.

(b) To amend your application for certification, send the Designated Compliance Officer the following information:

(1) Describe in detail the addition or change in the engine model or configuration you intend to make.

(2) Include engineering evaluations or data showing that the amended engine family complies with all applicable requirements. You may do this by showing that the original emission-data engine is still appropriate with respect to showing compliance of the amended family with all applicable requirements.

(3) If the original emission-data engine for the engine family is not appropriate to show compliance for the new or modified nonroad engine, include new test data showing that the new or modified nonroad engine meets the requirements of this part.

(c) We may ask for more test data or engineering evaluations. You must give us these within 30 days after we request them.

(d) For engine families already covered by a certificate of conformity, we will determine whether the existing certificate of conformity covers your new or modified nonroad engine. You may ask for a hearing if we deny your request (see § 1048.820).

(e) For engine families already covered by a certificate of conformity, you may start producing the new or modified nonroad engine anytime after you send us your amended application, before we make a decision under paragraph (d) of this section. However, if we determine that the affected engines do not meet applicable requirements, we will notify you to cease production of the engines and may require you to recall the engines at no expense to the owner. Choosing to produce engines under this paragraph (e) is deemed to be consent to recall all engines that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide information required under paragraph (c) of this section within 30 days, you must stop producing the new or modified nonroad engines.

■ 233. Section 1048.230 is revised to read as follows:

§ 1048.230 How do I select engine families?

(a) Divide your product line into families of engines that are expected to have similar emission characteristics throughout the useful life. Your engine family is limited to a single model year.

(b) Group engines in the same engine family if they are the same in all of the following aspects:

(1) The combustion cycle.

(2) The cooling system (water-cooled vs. air-cooled).

(3) Configuration of the fuel system (for example, fuel injection vs. carburetion).

(4) Method of air aspiration.

(5) The number, location, volume, and composition of catalytic converters.

(6) The number, arrangement, and approximate bore diameter of cylinders.

(7) Evaporative emission controls.

(c) You may subdivide a group of engines that is identical under paragraph (b) of this section into different engine families if you show the expected emission characteristics are different during the useful life.

(d) You may group engines that are not identical with respect to the things listed in paragraph (b) of this section in the same engine family if you show that their emission characteristics during the useful life will be similar.

(e) You may create separate families for exhaust emissions and evaporative emissions. If we do this, list both families on the emission control information label.

(f) Where necessary, you may divide an engine family into sub-families to meet different emission standards, as specified in § 1048.101(a)(2). For issues related to compliance and prohibited actions, we will generally apply decisions to the whole engine family. For engine labels and other administrative provisions, we may approve your request for separate treatment of sub-families.

■ 234. Section 1048.235 is revised to read as follows:

§ 1048.235 What emission testing must I perform for my application for a certificate of conformity?

This section describes the emission testing you must perform to show compliance with the emission standards in §§ 1048.101(a) and (b) and 1048.105 during certification. See § 1048.205(q) regarding emission testing related to the field-testing standards. See § 1048.240 and 40 CFR part 1065, subpart E, regarding service accumulation before emission testing.

(a) Test your emission-data engines using the procedures and equipment specified in subpart F of this part. For

any testing related to evaporative emissions, use good engineering judgment to include a complete fuel system with the engine.

(b) Select emission-data engines according to the following criteria:

(1) *Exhaust testing.* For each fuel type from each engine family, select an emission-data engine with a configuration that is most likely to exceed the exhaust emission standards, using good engineering judgment. Consider the emission levels of all exhaust constituents over the full useful life of the engine when operated in a piece of equipment.

(2) *Evaporative testing.* For each engine family that includes a volatile liquid fuel, select a test fuel system with a configuration that is most likely to exceed the evaporative emission standards, using good engineering judgment.

(c) We may measure emissions from any of your test engines or other engines from the engine family, as follows:

(1) We may decide to do the testing at your plant or any other facility. If we do this, you must deliver the test engine to a test facility we designate. The test engine you provide must include appropriate manifolds, aftertreatment devices, electronic control units, and other emission-related components not normally attached directly to the engine block. If we do the testing at your plant, you must schedule it as soon as possible and make available the instruments, personnel, and equipment we need.

(2) If we measure emissions on one of your test engines, the results of that testing become the official emission results for the engine. Unless we later invalidate these data, we may decide not to consider your data in determining if your engine family meets applicable requirements.

(3) Before we test one of your engines, we may set its adjustable parameters to any point within the physically adjustable ranges (see § 1048.115(e)).

(4) Before we test one of your engines, we may calibrate it within normal production tolerances for anything we do not consider an adjustable parameter.

(d) You may ask to use emission data from a previous model year instead of doing new tests, but only if all the following are true:

(1) The engine family from the previous model year differs from the current engine family only with respect to model year.

(2) The emission-data engine from the previous model year remains the appropriate emission-data engine under paragraph (b) of this section.

(3) The data show that the emission-data engine would meet all the

requirements that apply to the engine family covered by the application for certification.

(e) We may require you to test a second engine of the same or different configuration in addition to the engine tested under paragraph (b) of this section.

(f) If you use an alternate test procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in subpart F of this part, we may reject data you generated using the alternate procedure.

■ 235. Section 1048.240 is revised to read as follows:

§ 1048.240 How do I demonstrate that my engine family complies with exhaust emission standards?

(a) For purposes of certification, your engine family is considered in compliance with the applicable numerical emission standards in § 1048.101(a) and (b) if all emission-data engines representing that family have test results showing deteriorated emission levels at or below these standards.

(b) Your engine family is deemed not to comply if any emission-data engine representing that family has test results showing a deteriorated emission level above an applicable emission standard from § 1048.101 for any pollutant.

(c) To compare emission levels from the emission-data engine with the applicable emission standards, apply deterioration factors to the measured emission levels for each pollutant. Specify the deterioration factors based on emission measurements using four significant figures, consistent with good engineering judgment. For example, your deterioration factors must take into account any available data from in-use testing with similar engines (see subpart E of this part). Small-volume engine manufacturers may use assigned deterioration factors that we establish. Apply deterioration factors as follows:

(1) *Multiplicative deterioration factor.* For engines that use aftertreatment technology, such as catalytic converters, use a multiplicative deterioration factor for exhaust emissions. A multiplicative deterioration factor is the ratio of exhaust emissions at the end of useful life to exhaust emissions at the low-hour test point. Adjust the official emission results for each tested engine at the selected test point by multiplying the measured emissions by the deterioration factor. If the factor is less than one, use one.

(2) *Additive deterioration factor.* For engines that do not use aftertreatment

technology, use an additive deterioration factor for exhaust emissions. An additive deterioration factor is the difference between exhaust emissions at the end of useful life and exhaust emissions at the low-hour test point. Adjust the official emission results for each tested engine at the selected test point by adding the factor to the measured emissions. If the factor is less than zero, use zero.

(d) Collect emission data using measurements to one more decimal place than the applicable standard. Apply the deterioration factor to the official emission result, as described in paragraph (c) of this section, then round the adjusted figure to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard for each emission-data engine. In the case of HC + NO_x standards, apply the deterioration factor to each pollutant and then add the results before rounding.

■ 236. Section 1048.245 is amended by revising paragraph (e)(1)(i) to read as follows:

§ 1048.245 How do I demonstrate that my engine family complies with evaporative emission standards?

* * * * *

(e) * * *

(1) * * *

(i) Use a tethered or self-closing gas cap on a fuel tank that stays sealed up to a positive pressure of 24.5 kPa (3.5 psig) or a vacuum pressure of 0.7 kPa (0.1 psig).

* * * * *

■ 237. Section 1048.250 is amended by revising paragraphs (a) and (c) to read as follows:

§ 1048.250 What records must I keep and make available to EPA?

(a) Organize and maintain the following records:

(1) A copy of all applications and any summary information you send us.

(2) Any of the information we specify in § 1048.205 that you were not required to include in your application.

(3) A detailed history of each emission-data engine. For each engine, describe all of the following:

(i) The emission-data engine's construction, including its origin and buildup, steps you took to ensure that it represents production engines, any components you built specially for it, and all the components you include in your application for certification.

(ii) How you accumulated engine operating hours (service accumulation), including the dates and the number of hours accumulated.

(iii) All maintenance, including modifications, parts changes, and other service, and the dates and reasons for the maintenance.

(iv) All your emission tests, including documentation on routine and standard tests, as specified in part 40 CFR part 1065, and the date and purpose of each test.

(v) All tests to diagnose engine or emission-control performance, giving the date and time of each and the reasons for the test.

(vi) Any other significant events.

(4) Production figures for each engine family divided by assembly plant.

(5) Keep a list of engine identification numbers for all the engines you produce under each certificate of conformity.

* * * * *

(c) Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

* * * * *

■ 238. Section 1048.255 is revised to read as follows:

§ 1048.255 When may EPA deny, revoke, or void my certificate of conformity?

(a) If we determine your application is complete and shows that the engine family meets all the requirements of this part and the Act, we will issue a certificate of conformity for your engine family for that model year. We may make the approval subject to additional conditions.

(b) We may deny your application for certification if we determine that your engine family fails to comply with emission standards or other requirements of this part or the Act. Our decision may be based on a review of all information available to us. If we deny your application, we will explain why in writing.

(c) In addition, we may deny your application or suspend or revoke your certificate if you do any of the following:

(1) Refuse to comply with any testing or reporting requirements.

(2) Submit false or incomplete information (paragraph (e) of this section applies if this is fraudulent).

(3) Render inaccurate any test data.

(4) Deny us from completing authorized activities despite our presenting a warrant or court order (see 40 CFR 1068.20). This includes a failure to provide reasonable assistance.

(5) Produce engines for importation into the United States at a location where local law prohibits us from carrying out authorized activities.

(6) Fail to supply requested information or amend your application to include all engines being produced.

(7) Take any action that otherwise circumvents the intent of the Act or this part.

(d) We may void your certificate if you do not keep the records we require or do not give us information when we ask for it.

(e) We may void your certificate if we find that you intentionally submitted false or incomplete information.

(f) If we deny your application or suspend, revoke, or void your certificate, you may ask for a hearing (see § 1048.820).

■ 239. Section 1048.301 is amended by revising paragraphs (a) and (f) to read as follows:

§ 1048.301 When must I test my production-line engines?

(a) If you produce engines that are subject to the requirements of this part, you must test them as described in this subpart.

* * * * *

(f) We may ask you to make a reasonable number of production-line engines available for a reasonable time so we can test or inspect them for compliance with the requirements of this part. See 40 CFR 1068.27.

■ 240. Section 1048.305 is amended by revising paragraphs (d)(1), (f), and (g) to read as follows:

§ 1048.305 How must I prepare and test my production-line engines?

* * * * *

(d) * * *

(1) We may adjust or require you to adjust idle speed outside the physically adjustable range as needed only until the engine has stabilized emission levels (see paragraph (e) of this section). We may ask you for information needed to establish an alternate minimum idle speed.

* * * * *

(f) *Damage during shipment.* If shipping an engine to a remote facility for production-line testing makes necessary an adjustment or repair, you must wait until after the initial emission test to do this work. We may waive this requirement if the test would be impossible or unsafe, or if it would permanently damage the engine. Report to us, in your written report under § 1048.345, all adjustments or repairs you make on test engines before each test.

(g) *Retesting after invalid tests.* You may retest an engine if you determine an emission test is invalid under subpart F of this part. Explain in your written report reasons for invalidating

any test and the emission results from all tests. If you retest an engine and, within ten days after testing, ask to substitute results of the new tests for the original ones, we will answer within ten days after we receive your information.

■ 241. Section 1048.310 is amended by revising paragraphs (c) introductory text, (c)(2), (g), (h), and (i) to read as follows:

§ 1048.310 How must I select engines for production-line testing?

* * * * *

(c) Calculate the required sample size for each engine family. Separately calculate this figure for HC+NO_x and for CO. The required sample size is the greater of these two calculated values. Use the following equation:

$$N = \left[\frac{(t_{95} \times \sigma)}{(x - \text{STD})} \right]^2 + 1$$

Where:

N = Required sample size for the model year.

t₉₅ = 95% confidence coefficient, which depends on the number of tests completed, n, as specified in the table in paragraph (c)(1) of this section. It defines 95% confidence intervals for a one-tail distribution.

x = Mean of emission test results of the sample.

STD = Emission standard.

σ = Test sample standard deviation (see paragraph (c)(2) of this section).

n = The number of tests completed in an engine family.

* * * * *

(2) Calculate the standard deviation, σ, for the test sample using the following formula:

$$\sigma = \sqrt{\frac{\sum (X_i - x)^2}{n - 1}}$$

Where:

X_i = Emission test result for an individual engine.

* * * * *

(g) Continue testing any engine family for which the sample mean, x, is greater than the emission standard. This applies if the sample mean for either HC+NO_x or for CO is greater than the emission standard. Continue testing until one of the following things happens:

(1) The number of tests completed in an engine family, n, is greater than the required sample size, N, and the sample mean, x, is less than or equal to the emission standard. For example, if N = 3.1 after the third test, the sample-size calculation does not allow you to stop testing.

(2) The engine family does not comply according to § 1048.315.

(3) You test 30 engines from the engine family.

(4) You test one percent of your projected annual U.S.-directed production volume for the engine family, rounded to the nearest whole number. If your projected production is between 150 and 750 engines, test engines as specified in paragraph (b) of this section until you have tested one percent of your projected annual U.S.-directed production volume. For example, if projected volume is 475 engines, test two engines in each of the first two quarters and one engine in the third quarter to fulfill your testing requirements under this section for that engine family. If your projected production volume is less than 150, you must test at least two engines.

(5) You choose to declare that the engine family does not comply with the requirements of this subpart.

(h) If the sample-size calculation allows you to stop testing for a pollutant, you must continue measuring emission levels of that pollutant for any additional tests required under this section. However, you need not continue making the calculations specified in this section for that pollutant. This paragraph (h) does not affect the requirements in § 1048.320.

(i) You may elect to test more randomly chosen engines than we require under this section. Include these engines in the sample-size calculations.

■ 242. Section 1048.315 is amended by revising the introductory text to read as follows:

§ 1048.315 How do I know when my engine family fails the production-line testing requirements?

This section describes the pass/fail criteria for the production-line testing requirements. We apply these criteria on an engine-family basis. See § 1048.320 for the requirements that apply to individual engines that fail a production-line test.

* * * * *

■ 243. Section 1048.325 is amended by revising paragraph (d) to read as follows:

§ 1048.325 What happens if an engine family fails the production-line requirements?

* * * * *

(d) Section 1048.335 specifies steps you must take to remedy the cause of the engine family's production-line failure. All the engines you have produced since the end of the last test period are presumed noncompliant and should be addressed in your proposed remedy. We may require you to apply the remedy to engines produced earlier if we determine that the cause of the

failure is likely to have affected the earlier engines.

■ 244. Section 1048.345 is amended by revising paragraph (d) to read as follows:

§ 1048.345 What production-line testing records must I send to EPA?

* * * * *

(d) Send electronic reports of production-line testing to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

* * * * *

■ 245. Section 1048.350 is amended by revising paragraph (a) to read as follows:

§ 1048.350 What records must I keep?

(a) Organize and maintain your records as described in this section. We may review your records at any time.

* * * * *

■ 246. Section 1048.420 is amended by revising paragraph (b) to read as follows:

§ 1048.420 What in-use testing information must I report to EPA?

* * * * *

(b) Send electronic reports of in-use testing to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

* * * * *

■ 247. Section 1048.425 is amended by revising paragraph (a) to read as follows:

§ 1048.425 What records must I keep?

(a) Organize and maintain your records as described in this section. We may review your records at any time.

* * * * *

■ 248. Section 1048.501 is revised to read as follows:

§ 1048.501 How do I run a valid emission test?

(a) Use the equipment and procedures for spark-ignition engines in 40 CFR part 1065 to determine whether engines meet the duty-cycle emission standards in § 1048.101(a) and (b). Measure the emissions of all the pollutants we regulate in § 1048.101 using the sampling procedures specified in 40 CFR part 1065. Use the applicable duty

cycles specified in §§ 1048.505 and 1048.510.

(b) Section 1048.515 describes the supplemental procedures for evaluating whether engines meet the field-testing emission standards in § 1048.101(c).

(c) Use the fuels specified in 40 CFR part 1065, subpart C, to perform valid tests for all the testing we require in this part, except as noted in § 1048.515. For service accumulation, use the test fuel or any commercially available fuel that is representative of the fuel that in-use engines will use.

(d) In place of the provisions of 40 CFR 1065.405, you may consider emission levels stable without measurement after 50 hours of engine operation.

(e) To test engines for evaporative emissions, use the equipment and procedures specified for testing diurnal emissions in 40 CFR 86.107–96 and 86.133–96 with fuel meeting the specifications in 40 CFR part 1065, subpart C. Measure emissions from a test engine with a complete fuel system. Reported emission levels must be based on the highest emissions from three successive 24-hour periods of cycling temperatures. Note that you may omit testing for evaporative emissions during certification if you certify by design, as specified in § 1048.245.

(f) You may use special or alternate procedures to the extent we allow them under 40 CFR 1065.10.

(g) This subpart is addressed to you as a manufacturer, but it applies equally to anyone who does testing for you, and to us when we perform testing to determine if your engines meet emission standards.

(h) Map all engines (including constant-speed engines) using the procedures specified in 40 CFR part 1065 for variable-speed engines. For constant-speed engines, continue the mapping procedure until you reach the high-idle speed (the highest speed at which the engine produces zero torque).

■ 249. Section 1048.505 is revised to read as follows:

§ 1048.505 How do I test engines using steady-state duty cycles, including ramped-modal testing?

This section describes how to test engines under steady-state conditions. In some cases, we allow you to choose

the appropriate steady-state duty cycle for an engine. In these cases, you must use the duty cycle you select in your application for certification for all testing you perform for that engine family. If we test your engines to confirm that they meet emission standards, we will use the duty cycles you select for your own testing. We may also perform other testing as allowed by the Clean Air Act.

(a) You may perform steady-state testing with either discrete-mode or ramped-modal cycles, as follows:

(1) For discrete-mode testing, sample emissions separately for each mode, then calculate an average emission level for the whole cycle using the weighting factors specified for each mode. Calculate cycle statistics for the sequence of modes and compare with the specified values in 40 CFR 1065.514 to confirm that the test is valid. Operate the engine and sampling system as follows:

(i) *Engines with lean NO_x aftertreatment.* For lean-burn engines that depend on aftertreatment to meet the NO_x emission standard, operate the engine for 5–6 minutes, then sample emissions for 1–3 minutes in each mode.

(ii) *Engines without lean NO_x aftertreatment.* For other engines, operate the engine for at least 5 minutes, then sample emissions for at least 1 minute in each mode. Calculate cycle statistics for the sequence of modes and compare with the specified values in 40 CFR part 1065 to confirm that the test is valid.

(2) 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.

(b) Measure emissions by testing the engine on a dynamometer with one or more of the following sets of duty cycles to determine whether it meets the steady-state emission standards in § 1048.101(b):

(1) For engines from an engine family that will be used only in variable-speed applications, use one of the following duty cycles:

(i) The following duty cycle applies for discrete-mode testing:

TABLE 1 OF § 1048.505

C2 Mode No.	Engine speed ¹	Observed torque ²	Minimum time in mode (minutes)	Weighting factors
1	Maximum test speed	25	3.0	0.06
2	Intermediate test speed	100	3.0	0.02
3	Intermediate test speed	75	3.0	0.05

TABLE 1 OF § 1048.505—Continued

C2 Mode No.	Engine speed ¹	Observed torque ²	Minimum time in mode (minutes)	Weighting factors
4	Intermediate test speed	50	3.0	0.32
5	Intermediate test speed	25	3.0	0.30
6	Intermediate test speed	10	3.0	0.10
7	Idle	0	3.0	0.15

¹ Speed terms are defined in 40 CFR part 1065.

² The percent torque is relative to the maximum torque at the given engine speed.

(ii) The following duty cycle applies for ramped-modal testing:

TABLE 2 OF § 1048.505

RMC mode	Time in mode (seconds)	Engine speed ^{1, 2}	Torque (percent) ^{2, 3}
1a Steady-state	119	Warm Idle	0
1b Transition	20	Linear Transition	Linear Transition.
2a Steady-state	29	Intermediate Speed	100
2b Transition	20	Intermediate Speed	Linear Transition.
3a Steady-state	150	Intermediate Speed	10
3b Transition	20	Intermediate Speed	Linear Transition.
4a Steady-state	80	Intermediate Speed	75
4b Transition	20	Intermediate Speed	Linear Transition.
5a Steady-state	513	Intermediate Speed	25
5b Transition	20	Intermediate Speed	Linear Transition.
6a Steady-state	549	Intermediate Speed	50
5b Transition	20	Linear Transition	Linear Transition.
6a Steady-state	96	Maximum test speed	25
6b Transition	20	Linear Transition	Linear Transition.
7 Steady-state	124	Warm Idle	0

¹ Speed terms are defined in 40 CFR part 1065.

² Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

³ The percent torque is relative to maximum torque at the commanded engine speed.

(2) For engines from an engine family that will be used only at a single, rated speed, use one of the following duty cycles:

(i) The following duty cycle applies for discrete-mode testing:

TABLE 3 OF § 1048.505

D2 mode No.	Engine speed	Torque ¹	Minimum time in mode (minutes)	Weighting factors
1	Maximum test	100	3.0	0.05
2	Maximum test	75	3.0	0.25
3	Maximum test	50	3.0	0.30
4	Maximum test	25	3.0	0.30
5	Maximum test	10	3.0	0.10

¹ The percent torque is relative to the maximum torque at maximum test speed.

(ii) The following duty cycle applies for ramped-modal testing:

TABLE 4 OF § 1048.505

RMC mode	Time in mode (seconds)	Engine speed	Torque (percent) ^{1, 2}
1a Steady-state	53	Engine Governed	100
1b Transition	20	Engine Governed	Linear transition.
2a Steady-state	101	Engine Governed	10
2b Transition	20	Engine Governed	Linear transition.
3a Steady-state	277	Engine Governed	75
3b Transition	20	Engine Governed	Linear transition.

TABLE 4 OF § 1048.505—Continued

RMC mode	Time in mode (seconds)	Engine speed	Torque (percent) ^{1 2}
4a Steady-state	339	Engine Governed	25
4b Transition	20	Engine Governed	Linear transition.
5 Steady-state	350	Engine Governed	50

¹ The percent torque is relative to maximum test torque.

² Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

(3) Use a duty cycle from both paragraphs (b)(1) and (b)(2) of this section if you will not restrict an engine family to constant-speed or variable-speed applications.

(4) Use a duty cycle specified in paragraph (b)(2) of this section for all severe-duty engines.

(5) For high-load engines, use one of the following duty cycles:

(i) The following duty cycle applies for discrete-mode testing:

TABLE 5 OF § 1048.505

D1 mode No.	Engine speed	Torque ¹	Minimum time in mode (minutes)	Weighting factors
1	Maximum test	100	3.0	0.50
2	Maximum test	75	3.0	0.50

¹ The percent torque is relative to the maximum torque at maximum test speed.

(ii) The following duty cycle applies for discrete-mode testing:

TABLE 6 OF § 1048.505

RMC modes	Time in mode (seconds)	Engine speed (percent)	Torque (percent) ^{1 2}
1a Steady-state	290	Engine Governed	100
1b Transition	20	Engine Governed	Linear Transition.
2 Steady-state	290	Engine Governed	75

¹ The percent torque is relative to maximum test torque.

² Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

(c) If we test an engine to confirm that it meets the duty-cycle emission standards, we will use the steady-state duty cycles that apply for that engine family.

(d) During idle mode, operate the engine with the following parameters:

(1) Hold the speed within your specifications.

(2) Set the engine to operate at its minimum fueling rate.

(3) Keep engine torque under 5 percent of maximum test torque.

(e) For full-load operating modes, operate the engine at wide-open throttle.

(f) See 40 CFR part 1065 for detailed specifications of tolerances and calculations.

(g) For those cases where transient testing is not necessary, perform the steady-state test according to this section after an appropriate warm-up period, consistent with 40 CFR part 1065, subpart F.

■ 250. Section 1048.510 is amended by revising the section heading and paragraphs (a) and (c)(1) to read as follows:

§ 1048.510 Which duty cycles do I use for transient testing?

(a) Starting with the 2007 model year, measure emissions by testing the engine on a dynamometer with one of the following transient duty cycles to determine whether it meets the transient emission standards in § 1048.101(a):

(1) For constant-speed engines and severe-duty engines, use the transient duty-cycle described in Appendix I of this part.

(2) For all other engines, use the transient duty cycle described in Appendix II of this part.

* * * * *

(c) * * *

(1) Operate the engine for the first 180 seconds of the appropriate duty cycle from Appendix I or Appendix II of this

part, then allow it to idle without load for 30 seconds. At the end of the 30-second idling period, start measuring emissions as the engine operates over the prescribed duty cycle. For severe-duty engines, this engine warm-up procedure may include up to 15 minutes of operation over the appropriate duty cycle.

* * * * *

■ 251. Section 1048.515 is amended by revising the section heading and paragraphs (a)(1) and (a)(2) to read as follows:

§ 1048.515 What are the field-testing procedures?

(a) * * *

(1) Remove the selected engines for testing in a laboratory. You may use an engine dynamometer to simulate normal operation, as described in this section.

(2) Test the selected engines while they remain installed in the equipment. In 40 CFR part 1065, subpart J, we

describe the equipment and sampling methods for testing engines in the field. Use fuel meeting the specifications of 40 CFR part 1065, subpart H, or a fuel typical of what you would expect the engine to use in service.

* * * * *

■ 252. Section 1048.601 is revised to read as follows:

§ 1048.601 What compliance provisions apply to these engines?

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, the requirements and prohibitions in 40 CFR part 1068, and the provisions of the Act.

■ 253. Section 1048.605 is revised to read as follows:

§ 1048.605 What provisions apply to engines certified under the motor-vehicle program?

(a) *General provisions.* If you are an engine manufacturer, this section allows you to introduce new nonroad engines into commerce if they are already certified to the requirements that apply to engines under 40 CFR parts 85 and 86 for the appropriate model year. If you comply with all the provisions of this section, we consider the certificate issued under 40 CFR part 86 for each engine to also be a valid certificate of conformity under this part 1048 for its model year, without a separate application for certification under the requirements of this part 1048. See § 1048.610 for similar provisions that apply to engines certified to chassis-based standards for motor vehicles.

(b) *Equipment-manufacturer provisions.* If you are not an engine manufacturer, you may produce nonroad equipment using motor-vehicle engines under this section as long as you meet all the requirements and conditions specified in paragraph (d) of this section. If you modify the motor-vehicle engine in any of the ways described in paragraph (d)(2) of this section, we will consider you a manufacturer of a new nonroad engine. Such engine modifications prevent you from using the provisions of this section.

(c) *Liability.* Engines for which you meet the requirements of this section are exempt from all the requirements and prohibitions of this part, except for those specified in this section. Engines exempted under this section must meet all the applicable requirements from 40 CFR parts 85 and 86. This applies to engine manufacturers, equipment manufacturers who use these engines,

and all other persons as if these engines were used in a motor vehicle. The prohibited acts of 40 CFR 1068.101(a)(1) apply to these new engines and equipment; however, we consider the certificate issued under 40 CFR part 86 for each engine to also be a valid certificate of conformity under this part 1048 for its model year. If we make a determination that these engines do not conform to the regulations during their useful life, we may require you to recall them under 40 CFR part 86 or 40 CFR 1068.505.

(d) *Specific requirements.* If you are an engine manufacturer or equipment manufacturer and meet all the following criteria and requirements regarding your new nonroad engine, the engine is eligible for an exemption under this section:

(1) Your engine must be covered by a valid certificate of conformity issued under 40 CFR part 86.

(2) You must not make any changes to the certified engine that could reasonably be expected to increase its exhaust emissions for any pollutant, or its evaporative emissions. For example, if you make any of the following changes to one of these engines, you do not qualify for this exemption:

(i) Change any fuel system or evaporative system parameters from the certified configuration (this does not apply to refueling controls).

(ii) Change, remove, or fail to properly install any other component, element of design, or calibration specified in the engine manufacturer's application for certification. This includes aftertreatment devices and all related components.

(iii) Modify or design the engine cooling system so that temperatures or heat rejection rates are outside the original engine manufacturer's specified ranges.

(3) You must show that fewer than 50 percent of the engine family's total sales in the United States are used in nonroad applications. This includes engines used in any application without regard to which company manufactures the vehicle or equipment. Show this as follows:

(i) If you are the original manufacturer of the engine, base this showing on your sales information.

(ii) In all other cases, you must get the original manufacturer of the engine to confirm this based on its sales information.

(4) You must ensure that the engine has the label we require under 40 CFR part 86.

(5) You must add a permanent supplemental label to the engine in a position where it will remain clearly

visible after installation in the equipment. In the supplemental label, do the following:

(i) Include the heading: "NONROAD ENGINE EMISSION CONTROL INFORMATION".

(ii) Include your full corporate name and trademark. You may instead include the full corporate name and trademark of another company you choose to designate.

(iii) State: "THIS ENGINE WAS ADAPTED FOR NONROAD USE WITHOUT AFFECTING ITS EMISSION CONTROLS. THE EMISSION-CONTROL SYSTEM DEPENDS ON THE USE OF FUEL MEETING SPECIFICATIONS THAT APPLY FOR MOTOR-VEHICLE APPLICATIONS. OPERATING THE ENGINE ON OTHER FUELS MAY BE A VIOLATION OF FEDERAL LAW.".

(iv) State the date you finished modifying the engine (month and year), if applicable.

(6) The original and supplemental labels must be readily visible after the engine is installed in the equipment or, if the equipment obscures the engine's emission control information label, the equipment manufacturer must attach duplicate labels, as described in 40 CFR 1068.105.

(7) Send the Designated Compliance Officer a signed letter by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the engine or equipment models you expect to produce under this exemption in the coming year.

(iii) State: "We produce each listed [engine or equipment] model for nonroad application without making any changes that could increase its certified emission levels, as described in 40 CFR 1048.605.".

(e) *Failure to comply.* If your engines do not meet the criteria listed in paragraph (d) of this section, they will be subject to the standards, requirements, and prohibitions of this part 1048 and the certificate issued under 40 CFR part 86 will not be deemed to also be a certificate issued under this part 1048. Introducing these engines into commerce without a valid exemption or certificate of conformity under this part violates the prohibitions in 40 CFR 1068.101(a)(1).

(f) *Data submission.* We may require you to send us emission test data on any applicable nonroad duty cycles.

(g) *Participation in averaging, banking and trading.* Engines adapted for nonroad use under this section may generate credits under the ABT provisions in 40 CFR part 86. These

engines must use emission credits under 40 CFR part 86 if they are certified to an FEL that exceeds an applicable standard under 40 CFR part 86.

■ 254. Section 1048.610 is revised to read as follows:

§ 1048.610 What provisions apply to vehicles certified under the motor-vehicle program?

(a) *General provisions.* If you are a motor-vehicle manufacturer, this section allows you to introduce new nonroad engines or equipment into commerce if the vehicle is already certified to the requirements that apply under 40 CFR parts 85 and 86 for the appropriate model year. If you comply with all of the provisions of this section, we consider the certificate issued under 40 CFR part 86 for each motor vehicle to also be a valid certificate of conformity for the engine under this part 1048 for its model year, without a separate application for certification under the requirements of this part 1048. See § 1048.605 or similar provisions that apply to motor-vehicle engines produced for nonroad equipment. The provisions of this section do not apply to engines certified to meet the requirements for highway motorcycles.

(b) *Equipment-manufacturer provisions.* If you are not a motor-vehicle manufacturer, you may produce nonroad equipment from motor vehicles under this section as long as you meet all the requirements and conditions specified in paragraph (d) of this section. If you modify the motor vehicle or its engine in any of the ways described in paragraph (d)(2) of this section, we will consider you a manufacturer of a new nonroad engine. Such modifications prevent you from using the provisions of this section.

(c) *Liability.* Engines, vehicles, and equipment for which you meet the requirements of this section are exempt from all the requirements and prohibitions of this part, except for those specified in this section. Engines exempted under this section must meet all the applicable requirements from 40 CFR parts 85 and 86. This applies to engine manufacturers, equipment manufacturers, and all other persons as if the nonroad equipment were motor vehicles. The prohibited acts of 40 CFR 1068.101(a)(1) apply to these new pieces of equipment; however, we consider the certificate issued under 40 CFR part 86 for each motor vehicle to also be a valid certificate of conformity for the engine under this part 1048 for its model year. If we make a determination that these engines, vehicles, or equipment do not conform to the regulations during their useful life, we may require you to recall

them under 40 CFR part 86 or 40 CFR 1068.505.

(d) *Specific requirements.* If you are a motor-vehicle manufacturer and meet all the following criteria and requirements regarding your new nonroad equipment and its engine, the engine is eligible for an exemption under this section:

(1) Your equipment must be covered by a valid certificate of conformity as a motor vehicle issued under 40 CFR part 86.

(2) You must not make any changes to the certified vehicle that we could reasonably expect to increase its exhaust emissions for any pollutant, or its evaporative emissions if it is subject to evaporative-emission standards. For example, if you make any of the following changes, you do not qualify for this exemption:

(i) Change any fuel system or evaporative system parameters from the certified configuration, including refueling emission controls.

(ii) Change, remove, or fail to properly install any other component, element of design, or calibration specified in the vehicle manufacturer's application for certification. This includes aftertreatment devices and all related components.

(iii) Modify or design the engine cooling system so that temperatures or heat rejection rates are outside the original vehicle manufacturer's specified ranges.

(iv) Add more than 500 pounds to the curb weight of the originally certified motor vehicle.

(3) You must show that fewer than 50 percent of the engine family's total sales in the United States are used in nonroad applications. This includes any type of vehicle, without regard to which company completes the manufacturing of the nonroad equipment. Show this as follows:

(i) If you are the original manufacturer of the vehicle, base this showing on your sales information.

(ii) In all other cases, you must get the original manufacturer of the vehicle to confirm this based on their sales information.

(4) The equipment must have the vehicle emission control information and fuel labels we require under 40 CFR 86.007–35.

(5) You must add a permanent supplemental label to the equipment in a position where it will remain clearly visible. In the supplemental label, do the following:

(i) Include the heading: "NONROAD ENGINE EMISSION CONTROL INFORMATION".

(ii) Include your full corporate name and trademark. You may instead include the full corporate name and trademark of another company you choose to designate.

(iii) State: "THIS VEHICLE WAS ADAPTED FOR NONROAD USE WITHOUT AFFECTING ITS EMISSION CONTROLS. THE EMISSION-CONTROL SYSTEM DEPENDS ON THE USE OF FUEL MEETING SPECIFICATIONS THAT APPLY FOR MOTOR-VEHICLE APPLICATIONS. OPERATING THE ENGINE ON OTHER FUELS MAY BE A VIOLATION OF FEDERAL LAW."

(iv) State the date you finished modifying the vehicle (month and year), if applicable.

(6) The original and supplemental labels must be readily visible in the fully assembled equipment.

(7) Send the Designated Compliance Officer a signed letter by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the equipment models you expect to produce under this exemption in the coming year.

(iii) State: "We produced each listed engine or equipment model for nonroad application without making any changes that could increase its certified emission levels, as described in 40 CFR 1048.610."

(e) *Failure to comply.* If your engines, vehicles, or equipment do not meet the criteria listed in paragraph (d) of this section, the engines will be subject to the standards, requirements, and prohibitions of this part 1048, and the certificate issued under 40 CFR part 86 will not be deemed to also be a certificate issued under this part 1048. Introducing these engines into commerce without a valid exemption or certificate of conformity under this part violates the prohibitions in 40 CFR 1068.101(a)(1).

(f) *Data submission.* We may require you to send us emission test data on any applicable nonroad duty cycles.

(g) *Participation in averaging, banking and trading.* Vehicles adapted for nonroad use under this section may generate credits under the ABT provisions in 40 CFR part 86. These vehicles must use emission credits under 40 CFR part 86 if they are certified to an FEL that exceeds an applicable standard under 40 CFR part 86.

■ 255. Section 1048.615 is amended by revising paragraphs (a)(2), (a)(3), (c), and (d) to read as follows:

§ 1048.615 What are the provisions for exempting engines designed for lawn and garden applications?

* * * * *

(a) * * *

(2) The engine must have a maximum engine power at or below 30 kW.

(3) The engine must be in an engine family that has a valid certificate of conformity showing that it meets emission standards for Class II engines under 40 CFR part 90 for the appropriate model year.

* * * * *

(c) If your engines do not meet the criteria listed in paragraph (a) of this section, they will be subject to the provisions of this part. Introducing these engines into commerce without a valid exemption or certificate of conformity violates the prohibitions in 40 CFR 1068.101.

(d) Engines exempted under this section are subject to all the requirements affecting engines under 40 CFR part 90. The requirements and restrictions of 40 CFR part 90 apply to anyone manufacturing these engines, anyone manufacturing equipment that uses these engines, and all other persons in the same manner as if these engines had a total maximum engine power at or below 19 kW.

■ 256. Section 1048.620 is revised to read as follows:

§ 1048.620 What are the provisions for exempting large engines fueled by natural gas?

(a) If an engine meets all the following criteria, it is exempt from the requirements of this part:

(1) The engine must operate solely on natural gas or liquefied petroleum gas.

(2) The engine must have maximum engine power at or above 250 kW.

(3) The engine must be in an engine family that has a valid certificate of conformity showing that it meets emission standards for engines of that power rating under 40 CFR part 89 or 1039.

(b) The only requirements or prohibitions from this part that apply to an engine that is exempt under this section are in this section.

(c) If your engines do not meet the criteria listed in paragraph (a) of this section, they will be subject to the provisions of this part. Introducing these engines into commerce without a valid exemption or certificate of conformity violates the prohibitions in 40 CFR 1068.101.

(d) Engines exempted under this section are subject to all the requirements affecting engines under 40 CFR part 89 or 1039. The requirements and restrictions of 40 CFR part 89 or

1039 apply to anyone manufacturing these engines, anyone manufacturing equipment that uses these engines, and all other persons in the same manner as if these were nonroad diesel engines.

(e) You may request an exemption under this section by submitting an application for certification for the engines under 40 CFR part 89 or 1039.

■ 257. Section 1048.625 is revised to read as follows:

§ 1048.625 What special provisions apply to engines using noncommercial fuels?

In § 1048.115(e), we generally require that engines meet emission standards for any adjustment within the full range of any adjustable parameters. For engines that use noncommercial fuels significantly different than the specified test fuel of the same type, you may ask to use the parameter-adjustment provisions of this section instead of those in § 1048.115(e). Engines certified under this section must be in a separate engine family.

(a) If we approve your request, the following provisions apply:

(1) You must certify the engine using the test fuel specified in § 1048.501.

(2) You may produce the engine without limits or stops that keep the engine adjusted within the certified range.

(3) You must specify in-use adjustments different than the adjustable settings appropriate for the specified test fuel, consistent with the provisions of paragraph(b)(1) of this section.

(b) To produce engines under this section, you must do the following:

(1) Specify in-use adjustments needed so the engine's level of emission control for each regulated pollutant is equivalent to that from the certified configuration.

(2) Add the following information to the emission control information label specified in § 1048.135:

(i) Include instructions describing how to adjust the engine to operate in a way that maintains the effectiveness of the emission-control system.

(ii) State: "THIS ENGINE IS CERTIFIED TO OPERATE IN APPLICATIONS USING NONCOMMERCIAL FUEL. MALADJUSTMENT OF THE ENGINE IS A VIOLATION OFFEDERAL LAW SUBJECT TO CIVIL PENALTY."

(3) Keep records to document the destinations and quantities of engines produced under this section.

■ 258. A new § 1048.630 is added to subpart G to read as follows:

§ 1048.630 What are the provisions for exempting engines used solely for competition?

The provisions of this section apply for new engines built on or after January 1, 2006.

(a) Equipment manufacturers may use uncertified engines if the vehicles or equipment in which they are installed will be used solely for competition.

(b) The definition of nonroad engine in 40 CFR 1068.30 excludes engines used solely for competition. These engines are not required to comply with this part 1048, but 40 CFR 1068.101 prohibits the use of competition engines for noncompetition purposes.

(c) We consider a vehicle or piece of equipment to be one that will be used solely for competition if it has features that are not easily removed that would make its use other than in competition unsafe, impractical, or highly unlikely.

(d) As an engine manufacturer, your engine is exempt without our prior approval if you have a written request for an exempted engine from the equipment manufacturer showing the basis for believing that the equipment will be used solely for competition. You must permanently label engines exempted under this section to clearly indicate that they are to be used solely for competition. Failure to properly label an engine will void the exemption.

(e) We may discontinue an exemption under this section if we find that engines are not used solely for competition.

■ 259. A new § 1048.635 is added to subpart G to read as follows:

§ 1048.635 What special provisions apply to branded engines?

The following provisions apply if you identify the name and trademark of another company instead of your own on your emission control information label, as provided by § 1048.135(c)(2):

(a) You must have a contractual agreement with the other company that obligates that company to take the following steps:

(1) Meet the emission warranty requirements that apply under § 1048.120. This may involve a separate agreement involving reimbursement of warranty-related expenses.

(2) Report all warranty-related information to the certificate holder.

(b) In your application for certification, identify the company whose trademark you will use and describe the arrangements you have made to meet your requirements under this section.

(c) You remain responsible for meeting all the requirements of this chapter, including warranty and defect-reporting provisions.

■ 260. Section 1048.801 is revised to read as follows:

§ 1048.801 What definitions apply to this part?

The following definitions apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Act gives to them. The definitions follow:

Act means the Clean Air Act, as amended, 42 U.S.C. 7401–7671q.

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. This includes, but is not limited to, parameters related to injection timing and fueling rate. You may ask us to exclude a parameter that is difficult to access if it cannot be adjusted to affect emissions without significantly degrading engine performance, or if you otherwise show us that it will not be adjusted in a way that affects emissions during in-use operation.

Aftertreatment means relating to a catalytic converter, particulate filter, or any other system, component, or technology mounted downstream of the exhaust valve (or exhaust port) whose design function is to decrease emissions in the engine exhaust before it is exhausted to the environment. Exhaust-gas recirculation (EGR) and turbochargers are not aftertreatment.

Aircraft means any vehicle capable of sustained air travel above treetop heights.

All-terrain vehicle has the meaning given in 40 CFR 1051.801.

Amphibious vehicle means a vehicle with wheels or tracks that is designed primarily for operation on land and secondarily for operation in water.

Auxiliary emission-control device means any element of design that senses temperature, motive speed, engine rpm, transmission gear, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission-control system.

Blue Sky Series engine means an engine meeting the requirements of § 1048.140.

Brake power means the usable power output of the engine, not including power required to fuel, lubricate, or heat the engine, circulate coolant to the engine, or to operate aftertreatment devices.

Calibration means the set of specifications and tolerances specific to a particular design, version, or

application of a component or assembly capable of functionally describing its operation over its working range.

Certification means relating to the process of obtaining a certificate of conformity for an engine family that complies with the emission standards and requirements in this part.

Certified emission level means the highest deteriorated emission level in an engine family for a given pollutant from either transient or steady-state testing.

Compression-ignition means relating to a type of reciprocating, internal-combustion engine that is not a spark-ignition engine.

Constant-speed engine means an engine whose certification is limited to constant-speed operation. Engines whose constant-speed governor function is removed or disabled are no longer constant-speed engines.

Constant-speed operation means engine operation with a governor that controls the operator input to maintain an engine at a reference speed, even under changing load. For example, an isochronous governor changes reference speed temporarily during a load change, then returns the engine to its original reference speed after the engine stabilizes. Isochronous governors typically allow speed changes up to 1.0 %. Another example is a speed-droop governor, which has a fixed reference speed at zero load and allows the reference speed to decrease as load increases. With speed-droop governors, speed typically decreases (3 to 10) % below the reference speed at zero load, such that the minimum reference speed occurs near the engine's point of maximum power.

Crankcase emissions means airborne substances emitted to the atmosphere from any part of the engine crankcase's ventilation or lubrication systems. The crankcase is the housing for the crankshaft and other related internal parts.

Critical emission-related component means any of the following components:

(1) Electronic control units, aftertreatment devices, fuel-metering components, EGR-system components, crankcase-ventilation valves, all components related to charge-air compression and cooling, and all sensors and actuators associated with any of these components.

(2) Any other component whose primary purpose is to reduce emissions.

Designated Compliance Officer means the Manager, Engine Programs Group (6405–J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Designated Enforcement Officer means the Director, Air Enforcement

Division (2242A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Deteriorated emission level means the emission level that results from applying the appropriate deterioration factor to the official emission result of the emission-data engine.

Deterioration factor means the relationship between emissions at the end of useful life and emissions at the low-hour test point, expressed in one of the following ways:

(1) For multiplicative deterioration factors, the ratio of emissions at the end of useful life to emissions at the low-hour test point.

(2) For additive deterioration factors, the difference between emissions at the end of useful life and emissions at the low-hour test point.

Discrete-mode means relating to the discrete-mode type of steady-state test described in § 1048.505.

Emission-control system means any device, system, or element of design that controls or reduces the regulated emissions from an engine.

Emission-data engine means an engine that is tested for certification. This includes engines tested to establish deterioration factors.

Emission-related maintenance means maintenance that substantially affects emissions or is likely to substantially affect emission deterioration.

Engine configuration means a unique combination of engine hardware and calibration within an engine family. Engines within a single engine configuration differ only with respect to normal production variability.

Engine family has the meaning given in § 1048.230.

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Equipment manufacturer means a manufacturer of nonroad equipment. All nonroad equipment manufacturing entities under the control of the same person are considered to be a single nonroad equipment manufacturer.

Excluded means relating to an engine that either:

(1) Has been determined not to be a nonroad engine, as specified in 40 CFR 1068.30; or

(2) Is a nonroad engine that, according to § 1048.5, is not subject to this part 1048.

Exempted has the meaning given in 40 CFR 1068.30.

Exhaust-gas recirculation means a technology that reduces emissions by routing exhaust gases that had been exhausted from the combustion chamber(s) back into the engine to be

mixed with incoming air before or during combustion. The use of valve timing to increase the amount of residual exhaust gas in the combustion chamber(s) that is mixed with incoming air before or during combustion is not considered exhaust-gas recirculation for the purposes of this part.

Fuel system means all components involved in transporting, metering, and mixing the fuel from the fuel tank to the combustion chamber(s), including the fuel tank, fuel tank cap, fuel pump, fuel filters, fuel lines, carburetor or fuel-injection components, and all fuel-system vents.

Fuel type means a general category of fuels such as gasoline or natural gas. There can be multiple grades within a single fuel type, such as winter-grade and summer-grade gasoline.

Good engineering judgment has the meaning given in 40 CFR 1068.30. See 40 CFR 1068.5 for the administrative process we use to evaluate good engineering judgment.

High-cost warranted part means a component covered by the emission-related warranty with a replacement cost (at the time of certification) exceeding \$400 (in 1998 dollars). Adjust this value using the most recent annual average consumer price index information published by the U.S. Bureau of Labor Statistics. For this definition, replacement cost includes the retail cost of the part plus labor and standard diagnosis.

High-load engine means an engine for which the engine manufacturer can provide clear evidence that operation below 75 percent of maximum load in its final application will be rare.

Hydrocarbon (HC) means the hydrocarbon group on which the emission standards are based for each fuel type, as described in § 1048.101(e).

Identification number means a unique specification (for example, a model number/serial number combination) that allows someone to distinguish a particular engine from other similar engines.

Intermediate test speed has the meaning given in 40 CFR 1065.1001.

Low-hour means relating to an engine with stabilized emissions and represents the undeteriorated emission level. This would generally involve less than 300 hours of operation.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures an engine, vehicle, or piece of equipment for sale in the United States or otherwise introduces a new nonroad engine into commerce in the United States. This includes

importers who import engines, equipment, or vehicles for resale.

Marine engine means a nonroad engine that is installed or intended to be installed on a marine vessel. This includes a portable auxiliary engine only if its fueling, cooling, or exhaust system is an integral part of the vessel. There are two kinds of marine engines:

(1) Propulsion marine engine means a marine engine that moves a vessel through the water or directs the vessel's movement.

(2) Auxiliary marine engine means a marine engine not used for propulsion.

Marine vessel has the meaning given in 1 U.S.C. 3, except that it does not include amphibious vehicles. The definition in 1 U.S.C. 3 very broadly includes every craft capable of being used as a means of transportation on water.

Maximum engine power has one of the following meanings:

(1) For engines at or below 30 kW, maximum engine power has the meaning given in 40CFR 90.3.

(2) For engines above 30 kW, maximum engine power has the meaning given in 40 CFR 1039.140

Maximum test speed has one of the following meanings:

(1) For variable-speed engines, maximum test speed has the meaning given in 40 CFR 1065.1001.

(2) For transient testing of constant-speed engines, maximum test speed means the highest speed at which the engine produces zero torque.

(3) For steady-state testing of constant-speed engines, maximum test speed means the speed at which the engine produces peak torque.

Maximum test torque has the meaning given in 40 CFR 1065.1001.

Model year means one of the following things:

(1) For freshly manufactured equipment and engines (see definition of "new nonroad engine," paragraph (1)), model year means one of the following:

(i) Calendar year.

(ii) Your annual new model production period if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a nonroad engine after being placed into service as a motor-vehicle engine or a stationary engine, model year means the calendar year in which the engine was originally produced (see definition of "new nonroad engine," paragraph(2)).

(3) For a nonroad engine excluded under § 1048.5 that is later converted to operate in an application that is not excluded, model year means the calendar year in which the engine was originally produced (see definition of "new nonroad engine," paragraph (3)).

(4) For engines that are not freshly manufactured but are installed in new nonroad equipment, model year means the calendar year in which the engine is installed in the new nonroad equipment (see definition of "new nonroad engine," paragraph (4)).

(5) For imported engines:

(i) For imported engines described in paragraph (5)(i) of the definition of "new nonroad engine," *model year* has the meaning given in paragraphs (1) through (4) of this definition.

(ii) [Reserved]

Motor vehicle has the meaning given in 40 CFR 85.1703(a).

New nonroad engine means any of the following things:

(1) A freshly manufactured nonroad engine for which the ultimate purchaser has never received the equitable or legal title. This kind of engine might commonly be thought of as "brand new." In the case of this paragraph (1), the engine becomes new when it is fully assembled for the first time. The engine is no longer new when the ultimate purchaser receives the title or the product is placed into service, whichever comes first.

(2) An engine originally manufactured as a motor-vehicle engine or a stationary engine that is later intended to be used in a piece of nonroad equipment. In this case, the engine is no longer a motor-vehicle or stationary engine and becomes a "new nonroad engine". The engine is no longer new when it is placed into nonroad service.

(3) A nonroad engine that has been previously placed into service in an application we exclude under § 1048.5, where that engine is installed in a piece of equipment that is covered by this part 1048. The engine is no longer new when it is placed into nonroad service covered by this part 1048. For example, this would apply to a marine-propulsion engine that is no longer used in a marine vessel.

(4) An engine not covered by paragraphs (1) through (3) of this definition that is intended to be installed in new nonroad equipment. The engine is no longer new when the ultimate purchaser receives a title for the equipment or the product is placed into service, whichever comes first. This generally includes installation of used engines in new equipment.

(5) An imported nonroad engine, subject to the following provisions:

(i) An imported nonroad engine covered by a certificate of conformity issued under this part that meets the criteria of one or more of paragraphs (1) through (4) of this definition, where the original engine manufacturer holds the certificate, is new as defined by those applicable paragraphs.

(ii) An imported nonroad engine covered by a certificate of conformity issued under this part, where someone other than the original engine manufacturer holds the certificate (such as when the engine is modified after its initial assembly), becomes new when it is imported. It is no longer new when the ultimate purchaser receives a title for the engine or it is placed into service, whichever comes first.

(iii) An imported nonroad engine that is not covered by a certificate of conformity issued under this part at the time of importation is new, but only if it was produced on or after January 1, 2004. This addresses uncertified engines and equipment initially placed into service that someone seeks to import into the United States. Importation of this kind of new nonroad engine (or equipment containing such an engine) is generally prohibited by 40 CFR part 1068.

New nonroad equipment means either of the following things:

(1) A nonroad piece of equipment for which the ultimate purchaser has never received the equitable or legal title. The product is no longer new when the ultimate purchaser receives this title or the product is placed into service, whichever comes first.

(2) An imported nonroad piece of equipment with an engine not covered by a certificate of conformity issued under this part at the time of importation and manufactured after January 1, 2004.

Noncommercial fuel means a combustible product that is not marketed as a commercial fuel, but is used as a fuel for nonroad engines. For example, this includes methane that is produced and released from landfills or oil wells, or similar unprocessed fuels that are not intended to meet any otherwise applicable fuel specifications. See § 1048.615 for provisions related to engines designed to burn noncommercial fuels.

Noncompliant engine means an engine that was originally covered by a certificate of conformity, but is not in the certified configuration or otherwise does not comply with the conditions of the certificate.

Nonconforming engine means an engine not covered by a certificate of conformity that would otherwise be subject to emission standards.

Nonmethane hydrocarbon means the difference between the emitted mass of total hydrocarbons and the emitted mass of methane.

Nonroad means relating to nonroad engines or equipment that includes nonroad engines.

Nonroad engine has the meaning given in 40 CFR 1068.30. In general this means all internal-combustion engines except motor vehicle engines, stationary engines, engines used solely for competition, or engines used in aircraft. This part does not apply to all nonroad engines (see § 1048.5).

Nonroad equipment means a piece of equipment that is powered by one or more nonroad engines.

Off-highway motorcycle has the meaning given in 40 CFR 1051.801.

(Note: highway motorcycles are regulated under 40 CFR part 86.)

Official emission result means the measured emission rate for an emission-data engine on a given duty cycle before the application of any deterioration factor, but after the applicability of regeneration adjustment factors.

Owners manual means a document or collection of documents prepared by the engine manufacturer for the owner or operator to describe appropriate engine maintenance, applicable warranties, and any other information related to operating or keeping the engine. The owners manual is typically provided to the ultimate purchaser at the time of sale.

Oxides of nitrogen has the meaning given in 40 CFR part 1065.

Piece of equipment means any vehicle, vessel, or other type of equipment using engines to which this part applies.

Placed into service means put into initial use for its intended purpose.

Point of first retail sale means the location at which the initial retail sale occurs. This generally means an equipment dealership, but may also include an engine seller or distributor in cases where loose engines are sold to the general public for uses such as replacement engines.

Ramped-modal means relating to the ramped-modal type of steady-state test described in § 1048.505.

Rated speed means the maximum full-load governed speed for governed engines and the speed of maximum power for uncontrolled engines.

Revoke has the meaning given in 40 CFR 1068.30.

Round has the meaning given in 40 CFR 1065.1001, unless otherwise specified.

Scheduled maintenance means adjusting, repairing, removing, disassembling, cleaning, or replacing

components or systems periodically to keep a part or system from failing, malfunctioning, or wearing prematurely. It also may mean actions you expect are necessary to correct an overt indication of failure or malfunction for which periodic maintenance is not appropriate.

Severe-duty application includes concrete saws, concrete pumps, and any other application where an engine manufacturer can provide clear evidence that the majority of installations need air-cooled engines as a result of operation in a severe-duty environment.

Severe-duty engine means an engine from an engine family in which the majority of engines are installed in severe-duty applications.

Small-volume engine manufacturer means a company with fewer than 200 employees. This includes any employees working for parent or subsidiary companies.

Snowmobile has the meaning given in 40 CFR 1051.801.

Spark-ignition means relating to a gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark-ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

Steady-state means relating to emission tests in which engine speed and load are held at a finite set of essentially constant values. Steady-state tests are either discrete-mode tests or ramped-modal tests.

Stoichiometric means relating to the particular ratio of air and fuel such that if the fuel were fully oxidized, there would be no remaining fuel or oxygen. For example, stoichiometric combustion in a gasoline-fueled engine typically occurs at an air-fuel mass ratio of about 14.7.

Suspend has the meaning given in 40 CFR 1068.30.

Test engine means an engine in a test sample.

Test sample means the collection of engines selected from the population of an engine family for emission testing. This may include testing for certification, production-line testing, or in-use testing.

Tier 1 means relating to the emission standards and other requirements that apply beginning with the 2004 model year.

Tier 2 means relating to the emission standards and other requirements that apply beginning with the 2007 model year.

Total hydrocarbon 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 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 means, with respect to any new nonroad equipment or new nonroad engine, the first person who in good faith purchases such new nonroad equipment or new nonroad engine for purposes other than resale.

United States has the meaning given in 40 CFR 1068.30.

Upcoming model year means for an engine family the model year after the one currently in production.

U.S.-directed production volume means the number of engine units, subject to the requirements of this part, produced by a manufacturer for which the manufacturer has a reasonable assurance that sale was or will be made to ultimate purchasers in the United States.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. It is the period during which a new nonroad engine is required to comply with all applicable emission standards. See § 1048.101(g).

Variable-speed engine means an engine that is not a constant-speed engine.

Variable-speed operation means engine operation that does not meet the definition of constant-speed operation.

Void has the meaning given in 40 CFR 1068.30.

Volatile liquid fuel means any fuel other than diesel or biodiesel that is a liquid at atmospheric pressure and has a Reid Vapor Pressure higher than 2.0 pounds per square inch.

Wide-open throttle means maximum throttle opening. Unless this is specified at a given speed, it refers to maximum throttle opening at maximum speed. For electronically controlled or other engines with multiple possible fueling rates, wide-open throttle also means the maximum fueling rate at maximum throttle opening under test conditions.

We (us, our) means the Administrator of the Environmental Protection Agency and any authorized representatives.

■ 261. Section 1048.805 is amended by adding "NARA" to the table in alphabetical order to read as follows:

§ 1048.805 What symbols, acronyms, and abbreviations does this part use?

* * * * *

*	*	*	*	*	*	*
NARA	National Archives and Records Administration.					
*	*	*	*	*	*	*

■ 262. Section 1048.810 is revised to read as follows:

§ 1048.810 What materials does this part reference?

Documents listed in this section have been incorporated by reference into this part. The Director of the Federal Register approved the incorporation by reference as prescribed in 5 U.S.C. 552(a) and 1 CFR part 51. Anyone may inspect copies at the U.S. EPA, Air and Radiation Docket and Information

Center, 1301 Constitution Ave., NW., Room B102, EPA West Building, Washington, DC 20460 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(a) [Reserved]

(b) *SAE material*. Table 2 of this section lists material from the Society of Automotive Engineering that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may purchase copies of these materials from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096 or <http://www.sae.org>. Table 2 follows:

TABLE 2 OF § 1048.810.—SAE MATERIALS

Document number and name	Part 1048 reference
SAE J1930, Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms, revised May 1998	1048.135
SAE J2260, Nonmetallic Fuel System Tubing with One or More Layers, November 1996	1048.105

(c) *ISO material*. Table 3 of this section lists material from the International Organization for Standardization that we have incorporated by reference. The first

column lists the number and name of the material. The second column lists the section of this part where we reference it. Anyone may purchase copies of these materials from the

International Organization for Standardization, Case Postale 56, CH-1211 Geneva 20, Switzerland or <http://www.iso.org>. Table 3 follows:

TABLE 3 OF § 1048.810.—ISO MATERIALS

Document number and name	Part 1048 reference
ISO 9141-2 Road vehicles—Diagnostic systems—Part 2: CARB requirements for interchange of digital information, February 1994	1048.110
ISO 14230-4 Road vehicles—Diagnostic systems—Keyword Protocol 2000—Part 4: Requirements for emission-related systems, June 2000	1048.110

■ 263. Section 1048.815 is revised to read as follows:

§ 1048.815 What provisions apply to confidential information?

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

(b) We will store your confidential information as described in 40 CFR part 2. Also, we will disclose it only as specified in 40 CFR part 2. This applies both to any information you send us and to any information we collect from inspections, audits, or other site visits.

(c) If you send us a second copy without the confidential information, we will assume it contains nothing confidential whenever we need to release information from it.

(d) If you send us information without claiming it is confidential, we may make it available to the public without further notice to you, as described in 40 CFR 2.204.

■ 264. Section 1048.820 is revised to read as follows:

§ 1048.820 How do I request a hearing?

(a) You may request a hearing under certain circumstances, as described elsewhere in this part. To do this, you must file a written request, including a description of your objection and any supporting data, within 30 days after we make a decision.

(b) For a hearing you request under the provisions of this part, we will approve your request if we find that your request raises a substantial factual issue.

(c) If we agree to hold a hearing, we will use the procedures specified in 40 CFR part 1068, subpart G.

■ 265. Appendix I to part 1048 is amended in the table by adding a footnote to read as follows:

Appendix I to Part 1048—Large Spark-ignition (SI) Transient Cycle for Constant-Speed Engines

Time(s)	Normalized speed	Normalized torque ¹
*	*	*

Time(s)	Normalized speed	Normalized torque ¹
*	*	*

¹ The percent torque is relative to maximum torque at the commanded engine speed.

PART 1051—CONTROL OF EMISSIONS FROM RECREATIONAL ENGINES AND VEHICLES

■ 266. The authority citation for part 1051 is revised to read as follows:

Authority: 42 U.S.C. 7401–7671q.

■ 267. The heading for subpart A is revised to read as follows:

Subpart A—Overview and Applicability

■ 268. Section 1051.1 is revised to read as follows:

§ 1051.1 Does this part apply for my vehicles or engines?

(a) The regulations in this part 1051 apply for all the following new recreational vehicles or new engines used in the following recreational vehicles, except as provided in § 1051.5:

- (1) Snowmobiles.
- (2) Off-highway motorcycles.
- (3) All-terrain vehicles (ATVs.)
- (4) Offroad utility vehicles with engines with displacement less than or equal to 1000 cc, maximum engine power less than or equal to 30 kW, and maximum vehicle speed of 25 miles per hour or higher. Offroad utility vehicles that are subject to this part are subject to the same requirements as ATVs. This means that any requirement that applies to ATVs also applies to these offroad utility vehicles, without regard to whether the regulatory language mentions offroad utility vehicles.

(b) In certain cases, the regulations in this part 1051 apply to new engines under 50 cc used in motorcycles that are motor vehicles. See 40 CFR 86.447–2006 or 86.448–2006 for provisions related to this allowance.

(c) This part 1051 applies for new recreational vehicles starting in the 2006 model year, except as described in subpart B of this part. You need not follow this part for vehicles you produce before the 2006 model year, unless you certify voluntarily. See §§ 1051.103 through 1051.110,

§ 1051.145, and the definition of “model year” in § 1051.801 for more information about the timing of the requirements.

(d) The requirements of this part begin to apply when a vehicle is new. See the definition of “new” in § 1051.801 for more information. In some cases, vehicles or engines that have been previously used may be considered “new” for the purposes of this part.

(e) The evaporative emission requirements of this part apply to highway motorcycles, as specified in 40 CFR part 86, subpart E.

■ 269. Section 1051.5 is revised to read as follows:

§ 1051.5 Which engines are excluded from this part’s requirements?

(a) You may exclude vehicles with compression-ignition engines. See 40 CFR part 89 or 1039 for regulations that cover these engines.

(b) We may require you to label an engine or vehicle (or both) if this section excludes it and other requirements in this chapter do not apply.

■ 270. Section 1051.10 is revised to read as follows:

§ 1051.10 How is this part organized?

The regulations in this part 1051 contain provisions that affect both vehicle manufacturers and others. However, the requirements of this part are generally addressed to the vehicle manufacturer. The term “you” generally means the vehicle manufacturer, as defined in § 1051.801. This part 1051 is divided into the following subparts:

(a) Subpart A of this part defines the applicability of part 1051 and gives an overview of regulatory requirements.

(b) Subpart B of this part describes the emission standards and other requirements that must be met to certify engines under this part. Note that § 1051.145 discusses certain interim requirements and compliance provisions that apply only for a limited time.

(c) Subpart C of this part describes how to apply for a certificate of conformity.

(d) Subpart D of this part describes general provisions for testing production-line engines.

(e) [Reserved]

(f) Subpart F of this part describes how to test your engines (including references to other parts of the Code of Federal Regulations).

(g) Subpart G of this part and 40 CFR part 1068 describe requirements, prohibitions, and other provisions that apply to engine manufacturers, equipment manufacturers, owners, operators, rebuilders, and all others.

(h) Subpart H of this part describes how you may generate and use emission credits to certify your engines.

(i) Subpart I of this part contains definitions and other reference information.

■ 271. Section 1051.15 is revised to read as follows:

§ 1051.15 Do any other regulation parts apply to me?

(a) Parts 86 and 1065 of this chapter describe procedures and equipment specifications for testing vehicles and engines. Subpart F of this part 1051 describes how to apply the provisions of parts 86 and 1065 of this chapter to determine whether vehicles meet the emission standards in this part.

(b) The requirements and prohibitions of part 1068 of this chapter apply to everyone, including anyone who manufactures, imports, installs, owns, operates, or rebuilds any of the vehicles subject to this part 1051, or vehicles containing these engines. Part 1068 of this chapter describes general provisions, including these seven areas:

- (1) Prohibited acts and penalties for manufacturers and others.
- (2) Rebuilding and other aftermarket changes.
- (3) Exclusions and exemptions for certain vehicles and engines.
- (4) Importing vehicles and engines.
- (5) Selective enforcement audits of your production.
- (6) Defect reporting and recall.
- (7) Procedures for hearings.

(c) Other parts of this chapter apply if referenced in this part.

■ 272. Section 1051.101 is amended by revising paragraphs (a)(1), (a)(2), (c), and (f) to read as follows:

§ 1051.101 What emission standards and other requirements must my vehicles meet?

(a) * * *
 (1) The applicable exhaust emission standards in § 1051.103, § 1051.105, § 1051.107, or § 1051.145.

(i) For snowmobiles, see § 1051.103.
 (ii) For off-highway motorcycles, see § 1051.105.

(iii) For all-terrain vehicles and offroad utility vehicles subject to this part, see § 1051.107 and § 1051.145.

(2) The evaporative emission standards in § 1051.110.

* * * * *

(c) These standards and requirements apply to all testing, including certification, production-line, and in-use testing.

* * * * *

(f) As described in § 1051.1(a)(4), offroad utility vehicles that are subject to this part are subject to the same requirements as ATVs.

■ 273. Section 1051.103 is amended by revising paragraph (a)(1) before the table and paragraphs (b) introductory text and (c) introductory text to read as follows:

§ 1051.103 What are the exhaust emission standards for snowmobiles?

(a) * * *

(1) Follow Table 1 of this section for exhaust emission standards. You may generate or use emission credits under the averaging, banking, and trading (ABT) program for HC+NO_x and CO emissions, as described in subpart H of this part. This requires that you specify a family emission limit for each pollutant you include in the ABT program for each engine family. These family emission limits serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in this section. An engine family meets emission standards even if its family emission limit is higher than the standard, as long as you show that the whole averaging set of applicable engine families meets the applicable emission standards using emission credits, and the vehicles within the family meet the family emission limit. The phase-in values specify the percentage of your U.S.-directed production that must comply with the emission standards for those model years. Calculate this compliance percentage based on a simple count of your U.S.-directed production units within each certified engine family compared with a simple count of your total U.S.-directed production units. Table 1 also shows the maximum value you may specify for a family emission limit, as follows:

* * * * *

(b) The exhaust emission standards in this section apply for snowmobiles using the fuel type on which they are designed to operate. You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for snowmobiles powered by the following fuels:

* * * * *

(c) Your snowmobiles must meet emission standards over their full useful life. The minimum useful life is 8,000 kilometers, 400 hours of engine operation, or five calendar years,

whichever comes first. You must specify a longer useful life in terms of kilometers and hours for the engine family if the average service life of your vehicles is longer than the minimum value, as follows:

* * * * *

■ 274. Section 1051.105 is amended by revising paragraph (a)(1) before the table and paragraphs (a)(3), (b) introductory text, and (c) introductory text to read as follows:

§ 1051.105 What are the exhaust emission standards for off-highway motorcycles?

(a) * * *

(1) Follow Table 1 of this section for exhaust emission standards. You may generate or use emission credits under the averaging, banking, and trading (ABT) program for HC+NO_x and CO emissions, as described in subpart H of this part. This requires that you specify a family emission limit for each pollutant you include in the ABT program for each engine family. These family emission limits serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in this section. An engine family meets emission standards even if its family emission limit is higher than the standard, as long as you show that the whole averaging set of applicable engine families meets the applicable emission standards using emission credits, and the vehicles within the family meet the family emission limit. The phase-in values specify the percentage of your U.S.-directed production that must comply with the emission standards for those model years. Calculate this compliance percentage based on a simple count of your U.S.-directed production units within each certified engine family compared with a simple count of your total U.S.-directed production units. Table 1 follows:

* * * * *

(3) You may certify off-highway motorcycles with engines that have total displacement of 70 cc or less to the exhaust emission standards in § 1051.615 instead of certifying them to the exhaust emission standards of this section. Count all such vehicles in the phase-in (percent) requirements of this section.

(b) The exhaust emission standards in this section apply for off-highway motorcycles using the fuel type on which they are designed to operate. You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for off-highway

motorcycles powered by the following fuels:

* * * * *

(c) Your off-highway motorcycles must meet emission standards over their full useful life. For off-highway motorcycles with engines that have total displacement greater than 70 cc, the minimum useful life is 10,000 kilometers or five years, whichever comes first. For off-highway motorcycles with engines that have total displacement of 70 cc or less, the minimum useful life is 5,000 kilometers or five years, whichever comes first. You must specify a longer useful life for the engine family in terms of kilometers if the average service life of your vehicles is longer than the minimum value, as follows:

* * * * *

■ 275. Section 1051.107 is amended by revising paragraphs (a), (b) introductory text, and

(c) introductory text to read as follows:

§ 1051.107 What are the exhaust emission standards for all-terrain vehicles (ATVs) and offroad utility vehicles?

* * * * *

(a) Apply the exhaust emission standards in this section by model year. Measure emissions with the ATV test procedures in subpart F of this part.

(1) Follow Table 1 of this section for exhaust emission standards. You may generate or use emission credits under the averaging, banking, and trading (ABT) program for HC+NO_x emissions, as described in subpart H of this part. This requires that you specify a family emission limit for each pollutant you include in the ABT program for each engine family. These family emission limits serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in this section. An engine family meets emission standards even if its family emission limit is higher than the standard, as long as you show that the whole averaging set of applicable engine families meets the applicable emission standards using emission

credits, and the vehicles within the family meet the family emission limit. Table 1 also shows the maximum value you may specify for a family emission limit. The phase-in values in the table specify the percentage of your total U.S.-directed production that must comply with the emission standards for those model years.

Calculate this compliance percentage based on a simple count of your U.S.-directed production units within each certified engine family compared with a simple count of your total U.S.-directed production units. This applies to your total production of ATVs and offroad utility vehicles that are subject to the standards of this part; including both ATVs and offroad utility vehicles subject to the standards of this section and ATVs and offroad utility vehicles certified to the standards of other sections in this part 1051 (such as § 1051.615, but not including vehicles certified under other parts in this chapter (such as 40 CFR part 90). Table 1 follows:

TABLE 1 OF § 1051.107.—EXHAUST EMISSION STANDARDS FOR ATVs (G/KM)

Phase	Model year	Phase-in (percent)	Emission standards		Maximum allowable family emission limits	
			HC+NO _x	CO	HC+NO _x	CO
Phase 1	2006	50	1.5	35	20.0
	2007 and later	100	1.5	35	20.0

(2) You may certify ATVs with engines that have total displacement of less than 100 cc to the exhaust emission standards in § 1051.615 instead of certifying them to the exhaust emission standards of this section. Count all such vehicles in the phase-in(percent) requirements of this section.

(b) The exhaust emission standards in this section apply for ATVs using the fuel type on which they are designed to operate. You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for ATVs powered by the following fuels:

* * * * *

(c) Your ATVs must meet emission standards over their full useful life. For ATVs with engines that have total displacement of 100 cc or greater, the minimum useful life is 10,000 kilometers, 1000 hours of engine operation, or five years, whichever comes first. For ATVs with engines that have total displacement of less than 100 cc, the minimum useful life is 5,000 kilometers, 500 hours of engine operation, or five years, whichever

comes first. You must specify a longer useful life for the engine family in terms of kilometers and hours if the average service life of your vehicles is longer than the minimum value, as follows:

* * * * *

■ 276. Section 1051.110 is amended by revising the introductory text and paragraph (a) to read as follows:

§ 1051.110 What evaporative emission standards must my vehicles meet?

Your new vehicles must meet the emission standards of this section over their full useful life. Note that § 1051.245 allows you to use design-based certification instead of generating new emission data.

(a) Beginning with the 2008 model year, permeation emissions from your vehicle's fuel tank(s) may not exceed 1.5 grams per square-meter per day when measured with the test procedures for tank permeation in subpart F of this part. You may generate or use emission credits under the averaging, banking, and trading (ABT) program, as described in subpart H of this part.

* * * * *

■ 277. Section 1051.115 is amended by removing and reserving paragraph (b), revising paragraphs (a), (c), (f), and (g), and adding a new paragraph (d)(3)(vi) to read as follows:

§ 1051.115 What other requirements must my vehicles meet?

* * * * *

(a) *Closed crankcase.* Crankcase emissions may not be discharged directly into the ambient atmosphere from any vehicle throughout its useful life.

* * * * *

(c) *Adjustable parameters.* Vehicles that have adjustable parameters must meet all the requirements of this part for any adjustment in the physically adjustable range. Note that parameters that control the air-fuel ratio may be treated separately under paragraph (d) of this section. 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 range during any testing, including

certification testing, production-line testing, or in-use testing.

(d) * * *

(3) * * *

(vi) The adjustable range of carburetor screws, such as air screw, fuel screw, and idle-speed screw must be defined by stops, limits, or specification on the jetting chart consistent with the requirements for specifying jet sizes and needle configuration in this section.

* * * * *

(f) *Defeat devices.* You may not equip your vehicles with a defeat device. A defeat device is an auxiliary emission-control device that reduces the effectiveness of emission controls under conditions that the vehicle may reasonably be expected to encounter during normal operation and use. This does not apply to auxiliary emission-control devices you identify in your certification application if any of the following is true:

(1) The conditions of concern were substantially included in the applicable test procedures described in subpart F of this part.

(2) You show your design is necessary to prevent vehicle damage or accidents.

(3) The reduced effectiveness applies only to starting the engine.

(g) *Noise standards.* There are no noise standards specified in this part 1051. See 40 CFR Chapter I, Subchapter G, to determine if your vehicle must meet noise emission standards under another part of our regulations.

■ 278. Section 1051.120 is revised to read as follows:

§ 1051.120 What emission-related warranty requirements apply to me?

(a) *General requirements.* You must warrant to the ultimate purchaser and each subsequent purchaser that the new engine, including all parts of its emission-control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this part.

(2) It is free from defects in materials and workmanship that may keep it from meeting these requirements.

(b) *Warranty period.* Your emission-related warranty must be valid for at least 50 percent of the vehicle's minimum useful life in kilometers or hours of engine operation (where applicable), or at least 30 months, whichever comes first. You may offer an emission-related warranty more generous than we require. The emission-related warranty for the engine may not be shorter than any published warranty you offer without charge for the engine. Similarly, the emission-related warranty

for any component may not be shorter than any published warranty you offer without charge for that component. If a vehicle has no odometer, base warranty periods in this paragraph (b) only on the vehicle's age (in years). The warranty period begins when the engine is placed into service.

(c) *Components covered.* The emission-related warranty covers all components whose failure would increase an engine's emissions of any pollutant. This includes components listed in 40 CFR part 1068, Appendix I, 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 pollutant.

(d) *Limited applicability.* You may deny warranty claims under this section if the operator caused the problem through improper maintenance or use, as described in 40 CFR 1068.115. You may ask us to allow you to exclude from your emission-related warranty certified vehicles that have been used significantly for competition, especially certified motorcycles that meet at least four of the criteria in § 1051.620(b)(1).

(e) *Owners manual.* Describe in the owners manual the emission-related warranty provisions from this section that apply to the engine.

■ 279. Section 1051.125 is revised to read as follows:

§ 1051.125 What maintenance instructions must I give to buyers?

Give the ultimate purchaser of each new vehicle written instructions for properly maintaining and using the vehicle, including the emission-control system. The maintenance instructions also apply to service accumulation on your emission-data vehicles, as described in § 1051.240, § 1051.245, and 40 CFR part 1065.

(a) *Critical emission-related maintenance.* Critical emission-related maintenance includes any adjustment, cleaning, repair, or replacement of critical emission-related components. This may also include additional emission-related maintenance that you determine is critical if we approve it in advance. You may schedule critical emission-related maintenance on these components if you meet the following conditions:

(1) You demonstrate that the maintenance is reasonably likely to be done at the recommended intervals on in-use vehicles. We will accept scheduled maintenance as reasonably

likely to occur if you satisfy any of the following conditions:

(i) You present data showing that, if a lack of maintenance increases emissions, it also unacceptably degrades the vehicle's performance.

(ii) You present survey data showing that at least 80 percent of vehicles in the field get the maintenance you specify at the recommended intervals.

(iii) You provide the maintenance free of charge and clearly say so in maintenance instructions for the customer.

(iv) You otherwise show us that the maintenance is reasonably likely to be done at the recommended intervals.

(2) You may not schedule critical emission-related maintenance within the minimum useful life period for aftertreatment devices, pulse-air valves, fuel injectors, oxygen sensors, electronic control units, superchargers, or turbochargers.

(b) *Recommended additional maintenance.* You may recommend any additional amount of maintenance on the components listed in paragraph (a) of this section, as long as you state clearly that these maintenance steps are not necessary to keep the emission-related warranty valid. If operators do the maintenance specified in paragraph (a) of this section, but not the recommended additional maintenance, this does not allow you to disqualify those vehicles from in-use testing or deny a warranty claim. Do not take these maintenance steps during service accumulation on your emission-data vehicles.

(c) *Special maintenance.* You may specify more frequent maintenance to address problems related to special situations, such as atypical vehicle operation. You must clearly state that this additional maintenance is associated with the special situation you are addressing.

(d) *Noncritical emission-related maintenance.* You may schedule any amount of emission-related inspection or maintenance that is not covered by paragraph (a) of this section, as long as you state in the owners 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 vehicles from in-use testing or deny a warranty claim. Do not take these inspection or maintenance steps during service accumulation on your emission-data vehicles.

(e) *Maintenance that is not emission-related.* For maintenance unrelated to emission controls, you may schedule any amount of inspection or maintenance. You may also take these

inspection or maintenance steps during service accumulation on your emission-data vehicles, as long as they are reasonable and technologically necessary. This might include adding engine oil, changing air, fuel, or oil filters, servicing engine-cooling systems, and adjusting idle speed, governor, engine bolt torque, valve lash, or injector lash, or adjusting chain tension, clutch position, or tire pressure. You may perform this nonemission-related maintenance on emission-data vehicles at the least frequent interval that you recommend to the ultimate purchaser (but not the intervals recommended for severe service). You may also visually inspect test vehicles or engines, including emission-related components, as needed to ensure safe operation.

(f) *Source of parts and repairs.* State clearly on the first page of your written maintenance instructions that a repair shop or person of the owner's choosing may maintain, replace, or repair emission-control devices and systems. Your instructions may not require components or service identified by brand, trade, or corporate name. Also, do not directly or indirectly condition your warranty on a requirement that the vehicle be serviced by your franchised dealers or any other service establishments with which you have a commercial relationship. You may disregard the requirements in this paragraph (f) if you do one of two things:

- (1) Provide a component or service without charge under the purchase agreement.
- (2) Get us to waive this prohibition in the public's interest by convincing us the vehicle will work properly only with the identified component or service.

(g) *Payment for scheduled maintenance.* Owners are responsible for properly maintaining their vehicles. This generally includes paying for scheduled maintenance. However, manufacturers must pay for scheduled maintenance during the useful life if it meets all the following criteria:

- (1) Each affected component was not in general use on similar vehicles before the 2006 model year.
- (2) The primary function of each affected component is to reduce emissions.
- (3) The cost of the scheduled maintenance is more than 2 percent of the price of the vehicle.
- (4) Failure to perform the maintenance would not cause clear problems that would significantly degrade the vehicle's performance.

(h) *Owners manual.* Explain the owner's responsibility for proper maintenance in the owners manual. ■ 280. Section 1051.130 is revised to read as follows:

§ 1051.130 What installation instructions must I give to vehicle manufacturers?

(a) If you sell an engine for someone else to install in a piece of nonroad equipment, give the engine installer instructions for installing it consistent with the requirements of this part. Include all information necessary to ensure that an engine will be installed in its certified configuration.

(b) Make sure these instructions have the following information:

- (1) Include the heading: "Emission-related installation instructions".
- (2) State: "Failing to follow these instructions when installing a certified engine in a piece of nonroad equipment violates federal law (40 CFR 1068.105(b)), subject to fines or other penalties as described in the Clean Air Act."

(3) Describe the instructions needed to properly install the exhaust system and any other components. Include instructions consistent with the requirements of § 1051.205(r).

(4) Describe the steps needed to comply with the evaporative emission standards in § 1051.110.

(5) Describe any limits on the range of applications needed to ensure that the engine operates consistently with your application for certification. For example, if your engines are certified only to the snowmobile standards, tell vehicle manufacturers not to install the engines in other vehicles.

(6) Describe any other instructions to make sure the installed engine will operate according to design specifications in your application for certification. This may include, for example, instructions for installing aftertreatment devices when installing the engines.

(7) 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 vehicle, as described in 40 CFR 1068.105."

(c) You do not need installation instructions for engines you install in your own vehicles.

(d) Provide instructions in writing or in an equivalent format. For example, you may post instructions on a publicly available Web site for downloading or printing. If you do not provide the instructions in writing, explain in your application for certification how you will ensure that each installer is

informed of the installation requirements.

■ 281. Section 1051.135 is revised to read as follows:

§ 1051.135 How must I label and identify the vehicles I produce?

Each of your vehicles must have three labels: a vehicle identification number as described in paragraph (a) of this section, an emission control information label as described in paragraphs (b) through (e) of this section, and a consumer information label as described in § 1051.137.

(a) Assign each vehicle a unique identification number and permanently affix, engrave, or stamp it on the vehicle in a legible way.

(b) At the time of manufacture, affix a permanent and legible emission control information label identifying each vehicle. The label must be

- (1) Attached so it is not removable without being destroyed or defaced.
- (2) Secured to a part of the vehicle (or engine) needed for normal operation and not normally requiring replacement.
- (3) Durable and readable for the vehicle's entire life.
- (4) Written in English.

(c) The label must—

(1) Include the heading "EMISSION CONTROL INFORMATION".

(2) Include your full corporate name and trademark. You may identify another company and use its trademark instead of yours if you comply with the provisions of § 1051.645.

(3) Include EPA's standardized designation for engine families, as described in § 1051.230.

(4) State the engine's displacement (in liters). You may omit this from the emission control information label if the vehicle is permanently labeled with a unique model name that corresponds to a specific displacement. Also, you may omit displacement from the label if all the engines in the engine family have the same per-cylinder displacement and total displacement.

(5) State: "THIS VEHICLE IS CERTIFIED TO OPERATE ON [specify operating fuel or fuels]."

(6) State the date of manufacture [MONTH and YEAR]. You may omit this from the label if you keep a record of the engine-manufacture dates and provide it to us upon request, or if you stamp the date on the engine or vehicle.

(7) State the exhaust emission standards or FELs to which the vehicles are certified.

(8) Identify the emission-control system. Use terms and abbreviations consistent with SAE J1930 (incorporated by reference in § 1051.810). You may omit this information from the label if

there is not enough room for it and you put it in the owners manual instead.

(9) List specifications and adjustments for engine tuneups; show the proper position for the transmission during tuneup and state which accessories should be operating.

(10) Identify the fuel type and any requirements for fuel and lubricants. You may omit this information from the label if there is not enough room for it and you put it in the owners manual instead.

(11) State the useful life for your engine family if it is different than the minimum value.

(12) State: "S VEHICLE MEETS U.S. EPA REGULATIONS FOR [MODEL YEAR] [SNOWMOBILES or OFF-ROAD MOTORCYCLES or ATVs or OFFROAD UTILITY VEHICLES].".

(d) You may add information to the emission control information label to identify other emission standards that the vehicle meets or does not meet (such as California standards). You may also add other information to ensure that the engine will be properly maintained and used.

(e) You may ask us to approve modified labeling requirements in this part 1051 if you show that it is necessary or appropriate. We will approve your request if your alternate label is consistent with the requirements of this part.

(f) If you obscure the engine label while installing the engine in the equipment such that the label will be hard to read during normal maintenance, you must place a duplicate label on the equipment. If others install your engine in their equipment in a way that obscures the engine label, we require them to add a duplicate label on the equipment (see 40 CFR 1068.105); in that case, give them the number of duplicate labels they request and keep the following records for at least five years:

(1) Written documentation of the request from the equipment manufacturer.

(2) The number of duplicate labels you send and the date you sent them.

(g) Label every vehicle certified under this part with a removable hang-tag showing its emission characteristics relative to other models, as described in § 1051.137.

■ 282. A new § 1051.137 is added to read as follows:

§ 1051.137 What are the consumer labeling requirements?

Label every vehicle certified under this part with a removable hang-tag showing its emission characteristics relative to other models. The label

should be attached securely to the vehicle before it is offered for sale in such a manner that it would not be accidentally removed prior to sale. Use the applicable equations of this section to determine the normalized emission rate (NER) from the FEL for your vehicle. If the vehicle is certified without using the averaging provisions of subpart H, use the final deteriorated emission level. Round the resulting normalized emission rate for your vehicle to one decimal place. If the calculated NER value is less than zero, consider NER to be zero for that vehicle. We may specify a standardized format for labels. At a minimum, the tag should include: the manufacturer's name, vehicle model name, engine description (500 cc two-stroke with DFI), the NER, and a brief explanation of the scale (for example, note that 0 is the cleanest and 10 is the least clean).

(a) For snowmobiles, use the following equation:

$$\text{NER} = 16.61 \times \log(2.667 \times \text{HC} + \text{CO}) - 38.22$$

Where:

HC and CO are the cycle-weighted FELs (or emission rates) for hydrocarbons and carbon monoxide in g/kW-hr.

(b) For off-highway motorcycles, use the following equations:

(1) For off-highway motorcycles certified to the standards in § 1051.105, use one of the equations specified below.

(i) If the vehicle has HC + NO_x emissions less than or equal to 2.0 g/km, use the following equation:

$$\text{NER} = 2.500 \times (\text{HC} + \text{NO}_x)$$

Where:

HC+NO_x is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(ii) If the vehicle has HC + NO_x emissions greater than 2.0 g/km, use the following equation:

$$\text{NER} = 5.000 \times \log(\text{HC} + \text{NO}_x) + 3.495$$

Where:

HC+NO_x is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(2) For off-highway motorcycles certified to the standards in § 1051.615(b), use the following equation:

$$\text{NER} = 8.782 \times \log(\text{HC} + \text{NO}_x) - 5.598$$

Where:

HC+NO_x is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/kW-hr.

(c) For ATVs, use the following equations:

(1) For ATVs certified to the standards in § 1051.107, use one of the equations specified below.

(i) If the vehicle has HC + NO_x emissions less than or equal to 1.5 g/km, use the following equation:

$$\text{NER} = 3.333 \times (\text{HC} + \text{NO}_x)$$

Where:

HC+NO_x is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(ii) If the vehicle has HC + NO_x emissions greater than 1.5 g/km, use the following equation:

$$\text{NER} = 4.444 \times \log(\text{HC} + \text{NO}_x) + 4.217$$

Where:

HC+NO_x is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/km.

(2) For ATVs certified to the standards in § 1051.615(a), use the following equation:

$$\text{NER} = 8.782 \times \log(\text{HC} + \text{NO}_x) - 7.277$$

Where:

HC+NO_x is the FEL (or the sum of the cycle-weighted emission rates) for hydrocarbons and oxides of nitrogen in g/kW-hr.

■ 283. Section 1051.145 is amended by removing and reserving paragraph (c), revising paragraphs (a)(3)(iv), (a)(4), (b)(1) before the table, (b)(3), (e), and (g), and adding paragraphs (a)(3)(v), (a)(3)(vi), and (h) to read as follows:

§ 1051.145 What provisions apply only for a limited time?

* * * * *

(a) * * *

(3) * * *

(iv) Show that fewer than 50 percent of the engine family's total sales in the United States are used in recreational vehicles regulated under this part. This includes engines used in any application, without regard to which company manufactures the vehicle or equipment.

(v) If your engines do not meet the criteria listed in paragraph (a) of this section, they will be subject to the provisions of this part. Introducing these engines into commerce without a valid exemption or certificate of conformity violates the prohibitions in 40 CFR 1068.101.

(vi) Engines exempted under this paragraph (a)(3) are subject to all the requirements affecting engines under 40 CFR part 90. The requirements and restrictions of 40 CFR part 90 apply to anyone manufacturing these engines, anyone manufacturing equipment that

uses these engines, and all other persons in the same manner as other engines subject to 40 CFR part 90.

(4) All vehicles produced under this paragraph (a) must be labeled according to our specifications. The label must include the following:

(i) The heading "EMISSION CONTROL INFORMATION".

(ii) Your full corporate name and trademark.

(iii) A description of the provisions under which this section applies to your vehicle.

(iv) Other information that we specify to you in writing.

(b) * * *

(1) Follow Table 1 of this section for exhaust emission standards, while meeting all the other requirements of § 1051.107. You may use emission credits to show compliance with these standards (see subpart H of this part). You may not exchange emission credits with engine families meeting the standards in § 1051.107(a). You may also not exchange credits between engine families certified to the standards for engines above 225 cc and engine families certified to the standards for engines below 225 cc. The phase-in percentages in the table specify the percentage of your total U.S.-directed production that must comply with the emission standards for those model years (i.e., the percentage requirement does not apply separately for engine families above and below 225 cc). Table 1 follows:

* * * * *

(3) For ATVs certified to the standards in this paragraph (b), use the following equations to determine the normalized emission rate required by § 1051.137:

(i) For engines at or above 225 cc, use the following equation:

$$NER = 9.898 \times \log (HC + NO_x) - 4.898$$

Where:

HC + NO_x is the sum of the cycle-weighted emission rates for hydrocarbons and oxides of nitrogen in g/kW-hr.

(ii) For engines below 225 cc, use the following equation:

$$NER = 9.898 \times \log [(HC+NO_x) 0.83] - 4.898$$

Where:

HC + NO_x is the sum of the cycle-weighted emission rates for hydrocarbons and oxides of nitrogen in g/kW-hr.

* * * * *

(e) *Raw sampling procedures.* Using good engineering judgment, you may use the alternate raw-sampling procedures instead of the procedures described in 40 CFR part 1065 for

emission testing certain vehicles, as follows:

(1) *Snowmobile.* You may use the raw sampling procedures described in 40 CFR part 90 or 91 for snowmobiles before the 2010 model year.

(2) *ATV.* You may use the raw sampling procedures described in 40 CFR part 90 or 91 for ATVs certified to the standards in § 1051.615 before the 2011 model year. You may use these raw sampling procedures for ATVs certified to the standards in § 1051.107 or § 1051.145(b) before the 2009 model year.

(g) *Pull-ahead option for permeation emissions.* Manufacturers choosing to comply with an early tank permeation standard of 3.0 g/m²/day prior to model year 2008 may be allowed to delay compliance with the 1.5 g/m²/day standard by earning credits, as follows:

(1) Calculate earned credits using the following equation:

$$\text{Credit} = (\text{Baseline emissions} - \text{Pull-ahead level}) \times \sum_i (\text{Production})_i \times (\text{UL})_i$$

Where:

Baseline emissions = the baseline emission rate, as determined in paragraph (g)(2) of this section.

Pull-ahead level = the permeation level to which you certify the tank, which must be at or below 3.0 g/m²/day.

(Production)_i = the annual production volume of vehicles in the engine family for model year "i" times the average internal surface area of the vehicles' fuel tanks.

(UL)_i = The useful life of the engine family in model year "i".

(2) Determine the baseline emission level for calculating credits using any of the following values:

(i) 7.6 g/m²/day.

(ii) The emission rate measured from your lowest-emitting, uncontrolled fuel tank from the current or previous model year using the procedures in § 1051.515. For example, this would generally involve the fuel tank with the greatest wall thickness for a given material.

(iii) The emission rate measured from an uncontrolled fuel tank that is the same as or most similar to the model you have used during the current or previous model year. However, you may use this approach only if you use it to establish a baseline emission level for each unique tank model you produce using the procedures in § 1051.515.

(3) Pull-ahead tanks under this option must be certified and must meet all applicable requirements other than those limited to compliance with the exhaust standards.

(4) You may use credits generated under this paragraph (g) as specified in subpart H of this part.

(h) *Deficit credits for permeation standards.* For 2008 through 2010 model years, you may have a negative balance of emission credits relative to the permeation emission standards at the end of each model year, subject to the following provisions:

(1) You must eliminate any credit deficit we allow under this paragraph (h) by the end of the 2011 model year. If you are unable to eliminate your credit deficit by the end of the 2011 model year, we may void the certificates for all families certified to FELs above the allowable average, for all affected model years.

(2) State in your application for certification a statement whether you will have a negative balance of permeation emission credits for that model year. If you project that you will have a negative balance, estimate the credit deficit for each affected model year and present a detailed plan to show where and when you will get credits to offset the deficit by the end of the 2011 model year.

(3) In your end-of-year report under § 1051.730, state whether your credit deficit is larger or smaller than you projected in your application for certification. If the deficit is larger than projected, include in your end-of-year report an update to your detailed plan to show how you will eliminate the credit deficit by the end of the 2011 model year.

■ 284. Section 1051.201 is revised to read as follows:

§ 1051.201 What are the general requirements for obtaining a certificate of conformity?

(a) You must send us a separate application for a certificate of conformity for each engine family. A certificate of conformity is valid from the indicated effective date until December 31 of the model year for which it is issued.

(b) The application must contain all the information required by this part and must not include false or incomplete statements or information (see § 1051.255).

(c) We may ask you to include less information than we specify in this subpart, as long as you maintain all the information required by § 1051.250.

(d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) See § 1051.255 for provisions describing how we will process your application.

(g) We may require you to deliver your test vehicles or engines to a facility we designate for our testing (see § 1051.235(c)).

■ 285. Section 1051.205 is revised to read as follows:

§ 1051.205 What must I include in my application?

This section specifies the information that must be in your application, unless we ask you to include less information under § 1051.201(c). We may require you to provide additional information to evaluate your application.

(a) Describe the engine family's specifications and other basic parameters of the vehicle's design and emission controls. List the fuel type on which your engines are designed to operate (for example, gasoline, liquefied petroleum gas, methanol, or natural gas). List vehicle configurations and model names that are included in the engine family.

(b) Explain how the emission-control system operates. Describe the evaporative emission controls. Also describe in detail all system components for controlling exhaust emissions, including all auxiliary-emission control devices (AECs) and all fuel-system components you will install on any production or test vehicle or engine. Identify the part number of each component you describe. For this paragraph (b), treat as separate AECs any devices that modulate or activate differently from each other. Include all the following:

(1) Give a general overview of the engine, the emission-control strategies, and all AECs.

(2) Describe each AEC's general purpose and function.

(3) Identify the parameters that each AEC senses (including measuring, estimating, calculating, or empirically deriving the values). Include vehicle-based parameters and state whether you simulate them during testing with the applicable procedures.

(4) Describe the purpose for sensing each parameter.

(5) Identify the location of each sensor the AEC uses.

(6) Identify the threshold values for the sensed parameters that activate the AEC.

(7) Describe the parameters that the AEC modulates (controls) in response to any sensed parameters, including the range of modulation for each parameter, the relationship between the sensed parameters and the controlled parameters and how the modulation

achieves the AEC's stated purpose. Use graphs and tables, as necessary.

(8) Describe each AEC's specific calibration details. This may be in the form of data tables, graphical representations, or some other description.

(9) Describe the hierarchy among the AECs when multiple AECs sense or modulate the same parameter. Describe whether the strategies interact in a comparative or additive manner and identify which AEC takes precedence in responding, if applicable.

(10) Explain the extent to which the AEC is included in the applicable test procedures specified in subpart F of this part.

(11) Do the following additional things for AECs designed to protect engines or vehicles:

(i) Identify the engine and/or vehicle design limits that make protection necessary and describe any damage that would occur without the AEC.

(ii) Describe how each sensed parameter relates to the protected components' design limits or those operating conditions that cause the need for protection.

(iii) Describe the relationship between the design limits/parameters being protected and the parameters sensed or calculated as surrogates for those design limits/parameters, if applicable.

(iv) Describe how the modulation by the AEC prevents engines and/or equipment from exceeding design limits.

(v) Explain why it is necessary to estimate any parameters instead of measuring them directly and describe how the AEC calculates the estimated value, if applicable.

(vi) Describe how you calibrate the AEC modulation to activate only during conditions related to the stated need to protect components and only as needed to sufficiently protect those components in a way that minimizes the emission impact.

(c) [Reserved]

(d) Describe the vehicles or engines you selected for testing and the reasons for selecting them.

(e) Describe the test equipment and procedures that you used, including any special or alternate test procedures you used (see § 1051.501).

(f) Describe how you operated the emission-data vehicle before testing, including the duty cycle and the extent of engine operation used to stabilize emission levels. Explain why you selected the method of service accumulation. Describe any scheduled maintenance you did.

(g) List the specifications of the test fuel to show that it falls within the

required ranges we specify in 40 CFR part 1065.

(h) Identify the engine family's useful life.

(i) Include the maintenance instructions you will give to the ultimate purchaser of each new vehicle (see § 1051.125).

(j) Include the emission-related installation instructions you will provide if someone else installs your engines in a vehicle (see § 1051.130).

(k) Describe the labels you create to meet the requirements of § 1051.135.

(l) Identify the exhaust emission standards or FELs to which you are certifying engines in the engine family.

(m) Identify the engine family's deterioration factors and describe how you developed them (see § 1051.243 and § 1051.245). Present any emission test data you used for this.

(n) State that you operated your emission-data vehicles as described in the application (including the test procedures, test parameters, and test fuels) to show you meet the requirements of this part.

(o) Present emission data to show that you meet emission standards, as follows:

(1) Present emission data for hydrocarbons (such as NMHC or THCE, as applicable), NO_x, and CO on an emission-data vehicle to show your vehicles meet the applicable exhaust emission standards we specify in subpart B of this part. Show emission figures before and after applying deterioration factors for each pollutant and for each vehicle or engine. If we specify more than one grade of any fuel type (for example, a summer grade and winter grade of gasoline), you need to submit test data only for one grade, unless the regulations of this part specify otherwise for your engine.

(2) Present evaporative test data for hydrocarbons to show your vehicles meet the evaporative emission standards we specify in subpart B of this part. Show emission figures before and after applying deterioration factors for each vehicle or engine, where applicable. If you did not perform the testing, identify the source of the test data.

(3) Note that § 1051.235 and § 1051.245 allow you to submit an application in certain cases without new emission data.

(p) Report all test results, including those from invalid tests or from any other tests, whether or not they were conducted according to the test procedures of subpart F of this part. If you measure CO₂, report those emission levels. We may ask you to send other information to confirm that your tests

were valid under the requirements of this part and 40 CFR part 1065.

(q) Describe all adjustable operating parameters (see § 1051.115(e)), including production tolerances.

Include the following in your description of each parameter:

(1) The nominal or recommended setting.

(2) The intended physically adjustable range.

(3) The limits or stops used to establish adjustable ranges.

(4) Information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside your intended physically adjustable ranges.

(r) Confirm that your emission-related installation instructions specify how to ensure that sampling of exhaust emissions will be possible after engines are installed in equipment and placed in service. If this cannot be done by simply adding a 20-centimeter extension to the exhaust pipe, show how to sample exhaust emissions in a way that prevents diluting the exhaust sample with ambient air.

(s) Unconditionally certify that all the vehicles and/or engines in the engine family comply with the requirements of this part, other referenced parts of the CFR, and the Clean Air Act.

(t) Include estimates of U.S.-directed production volumes.

(u) Include the information required by other subparts of this part. For example, include the information required by § 1051.725 if you participate in the ABT program.

(v) Include other applicable information, such as information specified in this part or 40 CFR part 1068 related to requests for exemptions.

(w) Name an agent for service of process located in the United States. Service on this agent constitutes service on you or any of your officers or employees for any action by EPA or otherwise by the United States related to the requirements of this part.

■ 286. Section 1051.210 is revised to read as follows:

§ 1051.210 May I get preliminary approval before I complete my application?

If you send us information before you finish the application, we will review it and make any appropriate determinations, especially for questions related to engine family definitions, auxiliary emission-control devices, deterioration factors, testing for service accumulation, and maintenance. Decisions made under this section are considered to be preliminary approval, subject to final review and approval. We

will generally not reverse a decision where we have given you preliminary approval, unless we find new information supporting a different decision. If you request preliminary approval related to the upcoming model year or the model year after that, we will make best-efforts to make the appropriate determinations as soon as practicable. We will generally not provide preliminary approval related to a future model year more than two years ahead of time.

§ 1051.215 [Removed]

■ 287. Section 1051.215 is removed.

■ 288. Section 1051.220 is revised to read as follows:

§ 1051.220 How do I amend the maintenance instructions in my application?

You may amend your emission-related maintenance instructions after you submit your application for certification, as long as the amended instructions remain consistent with the provisions of § 1051.125. You must send the Designated Compliance Officer a request to amend your application for certification for an engine family if you want to change the emission-related maintenance instructions in a way that could affect emissions. In your request, describe the proposed changes to the maintenance instructions. We will disapprove your request if we determine that the amended instructions are inconsistent with maintenance you performed on emission-data vehicles.

(a) If you are decreasing the specified maintenance, you may distribute the new maintenance instructions to your customers 30 days after we receive your request, unless we disapprove your request. We may approve a shorter time or waive this requirement.

(b) If your requested change would not decrease the specified maintenance, you may distribute the new maintenance instructions anytime after you send your request. For example, this paragraph (b) would cover adding instructions to increase the frequency of a maintenance step for engines in severe-duty applications.

(c) You need not request approval if you are making only minor corrections (such as correcting typographical mistakes), clarifying your maintenance instructions, or changing instructions for maintenance unrelated to emission control.

■ 289. Section 1051.225 is revised to read as follows:

§ 1051.225 How do I amend my application for certification to include new or modified vehicles or to change an FEL?

Before we issue you a certificate of conformity, you may amend your application to include new or modified vehicle configurations, subject to the provisions of this section. After we have issued your certificate of conformity, you may send us an amended application requesting that we include new or modified vehicle configurations within the scope of the certificate, subject to the provisions of this section. You must amend your application if any changes occur with respect to any information included in your application.

(a) You must amend your application before you take any of the following actions:

(1) Add a vehicle (that is, an additional vehicle configuration) to an engine family. In this case, the vehicle added must be consistent with other vehicles in the engine family with respect to the criteria listed in § 1051.230.

(2) Change a vehicle already included in an engine family in a way that may affect emissions, or change any of the components you described in your application for certification. This includes production and design changes that may affect emissions any time during the engine's lifetime.

(3) Modify an FEL for an engine family, as described in paragraph (f) of this section.

(b) To amend your application for certification, send the Designated Compliance Officer the following information:

(1) Describe in detail the addition or change in the vehicle model or configuration you intend to make.

(2) Include engineering evaluations or data showing that the amended engine family complies with all applicable requirements. You may do this by showing that the original emission-data vehicle is still appropriate with respect to showing compliance of the amended family with all applicable requirements.

(3) If the original emission-data vehicle for the engine family is not appropriate to show compliance for the new or modified vehicle, include new test data showing that the new or modified vehicle meets the requirements of this part.

(c) We may ask for more test data or engineering evaluations. You must give us these within 30 days after we request them.

(d) For engine families already covered by a certificate of conformity, we will determine whether the existing certificate of conformity covers your

new or modified vehicle. You may ask for a hearing if we deny your request (see § 1051.820).

(e) For engine families already covered by a certificate of conformity, you may start producing the new or modified vehicle anytime after you send us your amended application, before we make a decision under paragraph (d) of this section. However, if we determine that the affected vehicles do not meet applicable requirements, we will notify you to cease production of the vehicles and may require you to recall the vehicles at no expense to the owner. Choosing to produce vehicles under this paragraph (e) is deemed to be consent to recall all vehicles that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide information required under paragraph (c) of this section within 30 days, you must stop producing the new or modified vehicles.

(f) You may ask to change your FEL in the following cases:

(1) You may ask to raise your FEL for your engine family after the start of production. You must use the higher FEL for the entire family to calculate your average emission level under subpart H of this part. In your request, you must demonstrate that you will still be able to comply with the applicable average emission standards as specified in subparts B and H of this part.

(2) You may ask to lower the FEL for your engine family after the start of production only when you have test data from production vehicles indicating that your vehicles comply with the lower FEL. You may create a separate subfamily with the lower FEL. Otherwise, you must use the higher FEL for the family to calculate your average emission level under subpart H of this part.

(3) If you change the FEL during production, you must include the new FEL on the emission control information label for all vehicles produced after the change.

■ 290. Section 1051.230 is revised to read as follows:

§ 1051.230 How do I select engine families?

(a) Divide your product line into families of vehicles that are expected to have similar emission characteristics throughout the useful life. Except as specified in paragraph (f) of this section, you must have separate engine families for meeting exhaust and evaporative emissions. Your engine family is limited to a single model year.

(b) For exhaust emissions, group vehicles in the same engine family if they are the same in all the following aspects:

- (1) The combustion cycle.
- (2) The cooling system (liquid-cooled vs. air-cooled).
- (3) Configuration of the fuel system (for example, port fuel injection vs. carburetion).
- (4) Method of air aspiration.
- (5) The number, location, volume, and composition of catalytic converters.
- (6) Type of fuel.
- (7) The number, arrangement, and approximate bore diameter of cylinders.
- (8) Numerical level of the emission standards that apply to the vehicle.

(c) For evaporative emissions, group vehicles in the same engine family if fuel tanks are similar and fuel lines are similar considering all the following aspects:

- (1) Type of material (including additives such as pigments, plasticizers, and UV inhibitors).
- (2) Emission-control strategy.
- (3) Production methods. This does not apply to differences in production methods that would not affect emission characteristics.

(d) You may subdivide a group of vehicles that is identical under paragraph (b) or (c) of this section into different engine families if you show the expected emission characteristics are different during the useful life.

(e) You may group vehicles that are not identical with respect to the things listed in paragraph (b) or (c) of this section in the same engine family, as follows:

(1) You may group such vehicles in the same engine family if you show that their emission characteristics during the useful life will be similar.

(2) If you are a small-volume manufacturer, you may group engines from any vehicles subject to the same emission standards into a single engine family. This does not change any of the requirements of this part for showing that an engine family meets emission standards.

(f) You may divide your product line into engine families based on a combined consideration of exhaust and evaporative emission-control systems, consistent with the requirements of this section. This would allow you to use a single engine-family designation for each engine family instead of having separate engine-family designations for exhaust and evaporative emission-control systems for each model.

(g) Select test engines from the engine family as described in 40 CFR 1065.401. Select test components related to evaporative emission-control systems

that are most likely to exceed the applicable emission standards. For example, select a fuel tank with the smallest average wall thickness (or barrier thickness, as appropriate) of those tanks you include in the same family.

■ 291. Section 1051.235 is revised to read as follows:

§ 1051.235 What emission testing must I perform for my application for a certificate of conformity?

This section describes the emission testing you must perform to show compliance with the emission standards in subpart B of this part.

(a) Test your emission-data vehicles using the procedures and equipment specified in subpart F of this part. Where specifically required or allowed, test the engine instead of the vehicle. For evaporative emissions, test the fuel system components separate from the vehicle.

(b) Select from each engine family an emission-data vehicle, and a fuel system for each fuel type with a configuration that is most likely to exceed the emission standards, using good engineering judgment. Consider the emission levels of all exhaust constituents over the full useful life of the vehicle.

(c) We may measure emissions from any of your test vehicles or engines (or any other vehicles or engines from the engine family), as follows:

(1) We may decide to do the testing at your plant or any other facility. If we do this, you must deliver the test vehicle or engine to a test facility we designate. The test vehicle or engine you provide must include appropriate manifolds, aftertreatment devices, electronic control units, and other emission-related components not normally attached directly to the engine block. If we do the testing at your plant, you must schedule it as soon as possible and make available the instruments, personnel, and equipment we need.

(2) If we measure emissions on one of your test vehicles or engines, the results of that testing become the official emission results. Unless we later invalidate these data, we may decide not to consider your data in determining if your engine family meets applicable requirements.

(3) Before we test one of your vehicles or engines, we may set its adjustable parameters to any point within the physically adjustable ranges (see § 1051.115(c)).

(4) Before we test one of your vehicles or engines, we may calibrate it within normal production tolerances for

anything we do not consider an adjustable parameter.

(d) You may use previously generated emission data in the following cases:

(1) You may ask to use emission data from a previous model year instead of doing new tests, but only if all the following are true:

(i) The engine family from the previous model year differs from the current engine family only with respect to model year.

(ii) The emission-data vehicle from the previous model year remains the appropriate emission-data vehicle under paragraph (b) of this section.

(iii) The data show that the emission-data vehicle would meet all the requirements that apply to the engine family covered by the application for certification.

(2) You may submit emission data for equivalent engine families performed to show compliance with other standards (such as California standards) instead of doing new tests, but only if the data show that the test vehicle or engine would meet all of this part's requirements.

(3) You may submit evaporative emission data measured by a fuel system supplier. We may require you to verify that the testing was conducted in accordance with the applicable regulations.

(e) We may require you to test a second vehicle or engine of the same or different configuration in addition to the vehicle or engine tested under paragraph (b) of this section.

(f) If you use an alternate test procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in subpart F of this part, we may reject data you generated using the alternate procedure.

(g) If you are a small-volume manufacturer, you may certify by design on the basis of preexisting exhaust emission data for similar technologies and other relevant information, and in accordance with good engineering judgment. In those cases, you are not required to test your vehicles. This is called "design-certification" or "certifying by design." To certify by design, you must show that the technology used on your engines is sufficiently similar to the previously tested technology that a person reasonably familiar with emission-control technology would believe that your engines will comply with the emission standards.

(h) For fuel tanks that are certified based on permeability treatments for plastic fuel tanks, you do not need to test each engine family. However, you must

use good engineering judgment to determine permeation rates for the tanks. This requires that more than one fuel tank be tested for each set of treatment conditions. You may not use test data from a given tank for any other tanks that have thinner walls. You may, however, use test data from a given tank for other tanks that have thicker walls. This applies to both low-hour (i.e., baseline testing) and durability testing. Note that § 1051.245 allows you to use design-based certification instead of generating new emission data.

■ 292. Section 1051.240 is revised to read as follows:

§ 1051.240 How do I demonstrate that my engine family complies with exhaust emission standards?

(a) For purposes of certification, your engine family is considered in compliance with the applicable numerical exhaust emission standards in subpart B of this part if all emission-data vehicles representing that family have test results showing deteriorated emission levels at or below these standards. (Note: if you participate in the ABT program in subpart H of this part, your FELs are considered to be the applicable emission standards with which you must comply.)

(b) Your engine family is deemed not to comply if any emission-data vehicle representing that family has test results showing a deteriorated emission level above an applicable FEL or emission standard from subpart B of this part for any pollutant.

(c) To compare emission levels from the emission-data vehicle with the applicable emission standards, apply deterioration factors to the measured emission levels. Section 1051.243 specifies how to test your vehicle to develop deterioration factors that represent the deterioration expected in emissions over your vehicle's full useful life. Your deterioration factors must take into account any available data from in-use testing with similar engines. Small-volume manufacturers may use assigned deterioration factors that we establish. Apply deterioration factors as follows:

(1) For vehicles that use aftertreatment technology, such as catalytic converters, use a multiplicative deterioration factor for exhaust emissions. A multiplicative deterioration factor for a pollutant is the ratio of exhaust emissions at the end of the useful life and exhaust emissions at the low-hour test point. In these cases, adjust the official emission results for each tested vehicle or engine at the selected test point by multiplying the measured emissions by the deterioration factor. If the factor is less than one, use

one. Multiplicative deterioration factors must be specified to three significant figures.

(2) For vehicles that do not use aftertreatment technology, use an additive deterioration factor for exhaust emissions. An additive deterioration factor for a pollutant is the difference between exhaust emissions at the end of the useful life and exhaust emissions at the low-hour test point. In these cases, adjust the official emission results for each tested vehicle or engine at the selected test point by adding the factor to the measured emissions. If the factor is less than zero, use zero. Additive deterioration factors must be specified to one more decimal place than the applicable standard.

(d) Collect emission data using measurements to one more decimal place than the applicable standard. Apply the deterioration factor to the official emission result, as described in paragraph (c) of this section, then round the adjusted figure to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard for each emission-data vehicle. In the case of HC+NO_x standards, add the emission results and apply the deterioration factor to the sum of the pollutants before rounding. However, if your deterioration factors are based on emission measurements that do not cover the vehicle's full useful life, apply the deterioration factor to each pollutant and then add the results before rounding.

■ 293. A new § 1051.243 is added to read as follows:

§ 1051.243 How do I determine deterioration factors from exhaust durability testing?

Establish deterioration factors to determine whether your engines will meet emission standards for each pollutant throughout the useful life, as described in subpart B of this part and § 1051.240. This section describes how to determine deterioration factors, either with pre-existing test data or with new emission measurements.

(a) You may ask us to approve deterioration factors for an engine family based on emission measurements from similar vehicles or engines if you have already given us these data for certifying other vehicles in the same or earlier model years. Use good engineering judgment to decide whether the two vehicles or engines are similar. We will approve your request if you show us that the emission measurements from other vehicles or engines reasonably represent in-use deterioration for the engine family for

which you have not yet determined deterioration factors.

(b) If you are unable to determine deterioration factors for an engine family under paragraph (a) of this section, select vehicles, engines, subsystems, or components for testing. Determine deterioration factors based on service accumulation and related testing to represent the deterioration expected from in-use vehicles over the full useful life, as follows:

(1) You must measure emissions from the emission-data vehicle at a low-hour test point and the end of the useful life. You may also test at evenly spaced intermediate points.

(2) Operate the vehicle or engine over a representative duty cycle for a period at least as long as the useful life (in hours or kilometers). You may operate the vehicle or engine continuously.

(3) You may perform maintenance on emission-data vehicles as described in § 1051.125 and 40 CFR part 1065, subpart E.

(4) If you measure emissions at only two points to calculate your deterioration factor, base your calculations on a linear relationship connecting these two data points for each pollutant. If you measure emissions at three or more points, use a linear least-squares fit of your test data for each pollutant to calculate your deterioration factor.

(5) Use good engineering judgment for all aspects of the effort to establish deterioration factors under this paragraph (b).

(6) You may to use other testing methods to determine deterioration factors, consistent with good engineering judgment.

(c) Include the following information in your application for certification:

(1) If you use test data from a different engine family, explain why this is appropriate and include all the emission measurements on which you base the deterioration factor.

(2) If you do testing to determine deterioration factors, describe the form and extent of service accumulation, including a rationale for selecting the service-accumulation period and the method you use to accumulate hours.

■ 294. Section 1051.245 is amended by revising paragraphs (a) introductory text, (b), (c), and (d) to read as follows:

§ 1051.245 How do I demonstrate that my engine family complies with evaporative emission standards?

(a) For purposes of certification, your engine family is considered in compliance with the evaporative

emission standards in subpart B of this part if you do either of the following:

* * * * *

(b) Your engine family is deemed not to comply if any fuel tank or fuel line representing that family has test results showing a deteriorated emission level above the standard.

(c) To compare emission levels with the emission standards, apply deterioration factor to the measured emission levels. For permeation emissions, use the following procedure to establish an additive deterioration factor, as described in § 1051.240(c)(2):

(1) Section 1051.515 specifies how to test your fuel tanks to develop deterioration factors. Small-volume manufacturers may use assigned deterioration factors that we establish. Apply the deterioration factors as follows:

(i) Calculate the deterioration factor from emission tests performed before and after the durability tests as described in § 1051.515(c) and (d), using good engineering judgment. The durability tests described in § 1051.515(d) represent the minimum requirements for determining a deterioration factor. You may not use a deterioration factor that is less than the difference between evaporative emissions before and after the durability tests as described in § 1051.515(c) and (d).

(ii) Do not apply the deterioration factor to test results for tanks that have already undergone these durability tests.

(2) Determine the deterioration factor for fuel lines using good engineering judgment.

(d) Collect emission data using measurements to one more decimal place than the applicable standard. Apply the deterioration factor to the official emission result, as described in paragraph (c) of this section, then round the adjusted figure to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard for each emission-data vehicle.

* * * * *

■ 295. Section 1051.250 is revised to read as follows:

§ 1051.250 What records must I keep and make available to EPA?

(a) Organize and maintain the following records:

(1) A copy of all applications and any summary information you send us.

(2) Any of the information we specify in § 1051.205 that you were not required to include in your application.

(3) A detailed history of each emission-data vehicle. For each vehicle, describe all of the following:

(i) The emission-data vehicle's construction, including its origin and buildup, steps you took to ensure that it represents production vehicles, any components you built specially for it, and all the components you include in your application for certification.

(ii) How you accumulated vehicle or engine operating hours, including the dates and the number of hours accumulated.

(iii) All maintenance, including modifications, parts changes, and other service, and the dates and reasons for the maintenance.

(iv) All your emission tests, including documentation on routine and standard tests, as specified in 40 CFR part 1065, and the date and purpose of each test.

(v) All tests to diagnose engine or emission-control performance, giving the date and time of each and the reasons for the test.

(vi) Any other significant events.

(4) Production figures for each engine family divided by assembly plant.

(5) Keep a list of engine identification numbers for all the engines you produce under each certificate of conformity.

(b) Keep data from routine emission tests (such as test cell temperatures and relative humidity readings) for one year after we issue the associated certificate of conformity. Keep all other information specified in paragraph (a) of this section for eight years after we issue your certificate.

(c) Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

(d) Send us copies of any maintenance instructions or explanations if we ask for them.

■ 296. Section 1051.255 is revised to read as follows:

§ 1051.255 What decisions may EPA make regarding my certificate of conformity?

(a) If we determine your application is complete and shows that the engine family meets all the requirements of this part and the Act, we will issue a certificate of conformity for your engine family for that model year. We may make the approval subject to additional conditions.

(b) We may deny your application for certification if we determine that your engine family fails to comply with emission standards or other requirements of this part or the Act. Our

decision may be based on a review of all information available to us. If we deny your application, we will explain why in writing.

(c) In addition, we may deny your application or suspend or revoke your certificate if you do any of the following:

(1) Refuse to comply with any testing or reporting requirements.

(2) Submit false or incomplete information (paragraph (e) of this section applies if this is fraudulent).

(3) Render inaccurate any test data.

(4) Deny us from completing authorized activities despite our presenting a warrant or court order (see 40 CFR 1068.20). This includes a failure to provide reasonable assistance.

(5) Produce engines for importation into the United States at a location where local law prohibits us from carrying out authorized activities.

(6) Fail to supply requested information or amend your application to include all engines being produced.

(7) Take any action that otherwise circumvents the intent of the Act or this part.

(d) We may void your certificate if you do not keep the records we require or do not give us information as required under this part or the Act.

(e) We may void your certificate if we find that you intentionally submitted false or incomplete information.

(f) If we deny your application or suspend, revoke, or void your certificate, you may ask for a hearing (see § 1051.820).

■ 297. The heading for subpart D is revised to read as follows:

Subpart D—Testing Production-Line Vehicles and Engines

■ 298. Section 1051.301 is amended by revising paragraph (a) and adding paragraph (h) to read as follows:

§ 1051.301 When must I test my production-line vehicles or engines

(a) If you produce vehicles that are subject to the requirements of this part, you must test them as described in this subpart. If your vehicle is certified to g/kW-hr standards, then test the engine; otherwise, test the vehicle. The provisions of this subpart do not apply to small-volume manufacturers.

(h) Vehicles certified to the following standards are exempt from the production-line testing requirements of this subpart if no engine families in the averaging set participate in the averaging, banking, and trading program described in subpart H of this part:

(1) Phase I or Phase 2 standards in § 1051.103

- (2) Phase I standards in § 1051.105
- (3) Phase I standards in § 1051.107.
- (4) The standards in § 1051.615.
- (5) The standards in § 1051.145.

■ 299. Section 1051.305 is amended by revising paragraphs (d)(1), (e), (f), and (g) to read as follows:

§ 1051.305 How must I prepare and test my production-line vehicles or engines

* * * * *

(1) We may adjust or require you to adjust idle speed outside the physically adjustable range as needed only until the vehicle or engine has stabilized emission levels (see paragraph (e) of this section). We may ask you for information needed to establish an alternate minimum idle speed.

* * * * *

(e) *Stabilizing emission levels.* Before you test production-line vehicles or engines, you may operate the vehicle or engine to stabilize the emission levels. Using good engineering judgment, operate your vehicles or engines in a way that represents the way they will be used. You may operate each vehicle or engine for no more than the greater of two periods:

- (1) 50 hours or 500 kilometers.
- (2) The number of hours or kilometers you operated the emission-data vehicle used for certifying the engine family (see 40 CFR part 1065, subpart E, or the applicable regulations governing how you should prepare your test vehicle or engine).

(f) *Damage during shipment.* If shipping a vehicle or engine to a remote facility for production-line testing or repair, you must wait until after the initial emission test to do this work. We may waive this requirement if the test would be impossible or unsafe, or if it would permanently damage the vehicle or engine. Report to us, in your written report under § 1051.345, all adjustments or repairs you make on test vehicles or engines before each test.

(g) *Retesting after invalid tests.* You may retest a vehicle or engine if you determine an emission test is invalid under subpart F of this part. Explain in your written report reasons for invalidating any test and the emission results from all tests. If you retest a vehicle or engine, you may ask us within ten days of testing. We will generally answer within ten days after we receive your information.

■ 300. Section 1051.310 is amended by revising paragraphs (c) introductory test, (c)(2), (f), (g), and (i) to read as follows:

§ 1051.310 How must I select vehicles or engines for production-line testing

* * * * *

(c) Calculate the required sample size for each engine family. Separately calculate this figure for HC, NO_x (or HC+NO_x), and CO (and other regulated pollutants). The required sample size is the greater of these calculated values. Use the following equation:

$$N = \left[\frac{(t_{95} \times \sigma)}{(x - \text{STD})} \right]^2 + 1$$

Where:

N = Required sample size for the model year.

t₉₅ = 95% confidence coefficient, which depends on the number of tests completed, n, as specified in the table in paragraph (c)(1) of this section. It defines 95% confidence intervals for a one-tail distribution.

x = Mean of emission test results of the sample.

STD = Emission standard (or family emission limit, if applicable).

σ = Test sample standard deviation (see paragraph (c)(2) of this section).

n = The number of tests completed in an engine family.

* * * * *

(2) Calculate the standard deviation, σ, or the test sample using the following formula:

$$\sigma = \sqrt{\frac{\sum (X_i - x)^2}{n - 1}}$$

Where:

X_i = Emission test result for an individual vehicle or engine.

* * * * *

(f) Distribute the remaining vehicle or engine tests evenly throughout the rest of the year. You may need to adjust your schedule for selecting vehicles or engines if the required sample size changes. Continue to randomly select vehicles or engines from each engine family.

(g) Continue testing any engine family for which the sample mean, x, is greater than the emission standard. This applies if the sample mean for either HC, NO_x (or HC+NO_x) or CO (or other regulated pollutants) is greater than the emission standard. Continue testing until one of the following things happens:

(1) The number of tests completed in an engine family, n, is greater than the required sample size, N, and the sample mean, x, is less than or equal to the emission standard. For example, If N = 3.1 after the third test, the sample-size calculation does not allow you to stop testing.

(2) The engine family does not comply according to § 1051.315.

(3) You test 30 vehicles or engines from the engine family.

(4) You test one percent of your projected annual U.S.-directed production volume for the engine family, rounded to the nearest whole number.

(5) You choose to declare that the engine family fails the requirements of this subpart.

* * * * *

(i) You may elect to test more randomly chosen vehicles or engines than we require under this section. Include these vehicles or engines in the sample-size calculations.

■ 301. Section 1051.315 is amended by revising the introductory text to read as follows:

§ 1051.315 How do I know when my engine family fails the production-line testing requirements

This section describes the pass-fail criteria for the production-line testing requirements. We apply these criteria on an engine family basis. See § 1051.320 for the requirements that apply to individual vehicles or engines that fail a production-line test.

* * * * *

■ 302. Section 1051.325 is amended by revising paragraph (d) to read as follows:

§ 1051.325 What happens if an engine family fails the production-line requirements?

* * * * *

(d) Section 1051.335 specifies steps you must take to remedy the cause of the engine family's production-line failure. All the vehicles you have produced since the end of the last test period are presumed noncompliant and should be addressed in your proposed remedy. We may require you to apply the remedy to engines produced earlier if we determine that the cause of the failure is likely to have affected the earlier engines.

* * * * *

■ 303. Section 1051.345 is amended by revising paragraphs (a) introductory text, (a)(5), (a)(10), and (d) to read as follows:

§ 1051.345 What production-line testing records must I send to EPA?

* * * * *

(a) Within 30 calendar days of the end of each test period, send us a report with the following information:

* * * * *

(5) Identify how you accumulated hours of operation on the vehicles or engines and describe the procedure and schedule you used.

* * * * *

(10) State the date the test period ended for each engine family.

* * * * *

(d) Send electronic reports of production-line testing to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

* * * * *

■ 304. Section 1051.350 is amended by revising paragraph (a) to read as follows:

§ 1051.350 What records must I keep?

(a) Organize and maintain your records as described in this section. We may review your records at any time.

* * * * *

■ 305. Section 1051.501 is amended by revising the introductory text and paragraphs (a), (b), (c)(2), and (d) and adding paragraph (e)(3) to read as follows:

§ 1051.501 What procedures must I use to test my vehicles or engines?

This section describes test procedures that you use to determine whether vehicles meet the emission standards of this part. See § 1051.235 to determine when testing is required for certification. See subpart D of this part for the production-line testing requirements.

(a) *Snowmobiles.* For snowmobiles, use the equipment and procedures for spark-ignition engines in 40 CFR part 1065 to determine whether your snowmobiles meet the duty-cycle emission standards in § 1051.103. Measure the emissions of all the pollutants we regulate in § 1051.103. Use the duty cycle specified in § 1051.505.

(b) *Motorcycles and ATVs.* For motorcycles and ATVs, use the equipment, procedures, and duty cycle in 40 CFR part 86, subpart F, to determine whether your vehicles meet the exhaust emission standards in § 1051.105 or § 1051.107. Measure the emissions of all the pollutants we regulate in § 1051.105 or § 1051.107. If we allow you to certify ATVs based on engine testing, use the equipment, procedures, and duty cycle described or referenced in the section that allows engine testing. For motorcycles with engine displacement at or below 169 cc and all ATVs, use the driving schedule in paragraph (c) of Appendix I to 40 CFR part 86. For all other motorcycles, use the driving schedule in paragraph (b) of Appendix I to part 86. With respect to vehicle-speed governors, test motorcycles and ATVs in their ungoverned configuration, unless we approve in advance testing in a governed configuration. We will only approve testing in a governed configuration if you can show that the

governor is permanently installed on all production vehicles and is unlikely to be removed in use. With respect to engine-speed governors, test motorcycles and ATVs in their governed configuration. Run the test engine, with all emission-control systems operating, long enough to stabilize emission levels; you may consider emission levels stable without measurement if you accumulate 12 hours of operation.

(c) * * *

(2) Prior to permeation testing of fuel hose, the hose must be preconditioned by filling the hose with the fuel specified in paragraph (d)(3) of this section, sealing the openings, and soaking the hose for 4 weeks at 23±5 °C. To measure fuel-line permeation emissions, use the equipment and procedures specified in SAE J30 (incorporated by reference in § 1051.810). The measurements must be performed at 23±2 °C using the fuel specified in paragraph (d)(3) of this section.

(d) *Fuels.* Use the fuels meeting the following specifications:

(1) *Exhaust.* Use the fuels and lubricants specified in 40 CFR part 1065, subpart H, for all the exhaust testing we require in this part. For service accumulation, use the test fuel or any commercially available fuel that is representative of the fuel that in-use engines will use.

(2) *Fuel Tank Permeation.* (i) For the preconditioning soak described in § 1051.515(a)(1) and fuel slosh durability test described in § 1051.515(d)(3), use the fuel specified in Table 1 of 40 CFR 1065.710 blended with 10 percent ethanol by volume. As an alternative, you may use Fuel CE10, which is Fuel C as specified in ASTM D 471-98 (incorporated by reference in § 1051.810) blended with 10 percent ethanol by volume.

(ii) For the permeation measurement test in § 1051.515(b), use the fuel specified in Table 1 of 40 CFR 1065.710. As an alternative, you may use the fuel specified in paragraph (d)(2)(i) of this section.

(3) *Fuel Hose Permeation.* Use the fuel specified in Table 1 of 40 CFR 1065.710 blended with 10 percent ethanol by volume for permeation testing of fuel lines. As an alternative, you may use Fuel CE10, which is Fuel C as specified in ASTM D 471-98 (incorporated by reference in § 1051.810) blended with 10 percent ethanol by volume.

(e) * * *

(3) You may test engines using a test speed based on the point of maximum power if that represents in-use operation

better than testing based on maximum test speed.

* * * * *

■ 306. Section 1051.505 is amended by revising paragraphs (a), (b)(3), (d), (e), (f) introductory text, (f)(5), and (f)(6) to read as follows:

§ 1051.505 What special provisions apply for testing snowmobiles?

Use the following special provisions for testing snowmobiles:

(a) You may perform steady-state testing with either discrete-mode or ramped-modal cycles. You must use the type of testing you select in your application for certification for all

testing you perform for that engine family. If we test your engines to confirm that they meet emission standards, we will do testing the same way. We may also perform other testing as allowed by the Clean Air Act. Measure steady-state emissions as follows:

(1) For discrete-mode testing, sample emissions separately for each mode, then calculate an average emission level for the whole cycle using the weighting factors specified for each mode. In each mode, operate the engine for at least 5 minutes, then sample emissions for at least 1 minute. Calculate cycle statistics for the sequence of modes and compare

with the specified values in 40 CFR 1065.514 to confirm that the test is valid.

(2) 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.

(3) Measure emissions by testing the engine on a dynamometer with one or more of the following sets of duty cycles to determine whether it meets the steady-state emission standards in § 1051.103:

(i) The following duty cycle applies for discrete-mode testing:

TABLE 1 OF § 1051.505.—5-MODE DUTY CYCLE FOR SNOWMOBILES

Mode No.	Speed (percent) ¹	Torque (percent) ²	Minimum time in mode (minutes)	Weighting factors
1	100	100	3.0	0.12
2	85	51	3.0	0.27
3	75	33	3.0	0.25
4	65	19	3.0	0.31
5	(³)	0	3.0	0.05

¹ Percent speed is percent of maximum test speed.

² Percent torque is percent of maximum test torque at maximum test speed.

³ Idle.

(ii) The following duty cycle applies for ramped-modal testing:

TABLE 2 OF § 1051.505.—RAMPED-MODAL CYCLE FOR TESTING SNOWMOBILES

RMC mode	Time in mode	Speed (percent) ¹	Torque (percent) ^{2,3}
1a Steady-state	27	Warm Idle	0
1b Transition	20	Linear Transition	Linear Transition.
2a Steady-state	121	100	100
2b Transition	20	Linear Transition	Linear Transition.
3a Steady-state	347	65	19
3b Transition	20	Linear Transition	Linear Transition.
4a Steady-state	305	85	51
4b Transition	20	Linear Transition	Linear Transition.
5a Steady-state	272	5	33
5b Transition	20	Linear Transition	Linear Transition.
6 Steady-state	28	Warm Idle	0

¹ Percent speed is percent of maximum test speed.

² Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

³ Percent torque is percent of maximum test torque at maximum test speed.

(b) * * *

(3) Keep engine torque under 5 percent of maximum test torque.

* * * * *

(d) Ambient temperatures during testing must be between 20 °C and 30 °C (68 °F and 86 °F), or other representative test temperatures, as specified in paragraph (f) of this section.

(e) See 40 CFR part 1065 for detailed specifications of tolerances and calculations.

(f) You may test snowmobiles at ambient temperatures below 20 °C or using intake air temperatures below 20 °C if you show that such testing complies with 40 CFR 1065.10(c)(1). You must get our approval before you begin the emission testing. For example, the following approach would be appropriate to show that such testing complies with 40 CFR 1065.10(c)(1):

* * * * *

(5) Calculate the nominal intake air test temperature for each test mode as -10° C (14 °F) plus the temperature difference for the corresponding mode determined in paragraph (f)(4) of this section.

(6) Before the emissions test, select the appropriate carburetor jetting for -10° C (14 °F) conditions according to the jet chart. For each mode, maintain the inlet air temperature within 5° C (9° F) of the corresponding modal

temperature calculated in paragraph (f)(5) of this section.

* * * * *

■ 307. Section 1051.515 is amended by revising paragraphs (a)(5), (b), and (d)(2) to read as follows:

§ 1051.515 How do I test my fuel tank for permeation emissions?

* * * * *

(a) * * *

(5) Seal the fuel tank using fuel caps and other fittings (excluding petcocks) that can be used to seal openings in a production fuel tank. In cases where openings are not normally sealed on the fuel tank (such as hose-connection fittings and vents in fuel caps), these openings may be sealed using nonpermeable fittings such as metal or fluoropolymer plugs.

(b) *Permeation test run.* To run the test, take the following steps for a tank that was preconditioned as specified in paragraph (a) of this section:

(1) Weigh the sealed fuel tank and record the weight to the nearest 0.1 grams. You may use less precise weights as long as the difference in mass from the start of the test to the end of the test has at least three significant figures. Take this measurement within 8 hours of filling the tank with test fuel as specified in paragraph (a)(3) of this section.

(2) Carefully place the tank within a ventilated, temperature-controlled room or enclosure. Do not spill or add any fuel.

(3) Close the room or enclosure and record the time.

(4) Ensure that the measured temperature in the room or enclosure is 28 ± 2 °C.

(5) Leave the tank in the room or enclosure for 14 days.

(6) Hold the temperature of the room or enclosure to 28 ± 2 °C; measure and record the temperature at least daily.

(7) At the end of the soak period, weigh the sealed fuel tank and record the weight to the nearest 0.1 grams. You may use less precise weights as long as the difference in mass from the start of the test to the end of the test has at least three significant figures. Unless the same fuel is used in the preconditioning fuel soak and the permeation test run, record weight measurements on five separate days per week of testing. The test is void if a linear plot of tank weight vs. test days for the full soak period for permeation testing specified in paragraph (b)(5) of this section yields r^2 below 0.8. See 40 CFR 1065.602 for the equation to calculate r^2 .

(8) Subtract the weight of the tank at the end of the test from the weight of the tank at the beginning of the test; divide

the difference by the internal surface area of the fuel tank. Divide this g/m^2 value by the number of test days (using at least three significant figures) to calculate the $\text{g}/\text{m}^2/\text{day}$ emission rate. Example: If a tank with an internal surface area of 0.72 m^2 weighed 31882.3 grams at the beginning of the test and weighed 31813.8 grams after soaking for 14.03 days, then the $\text{g}/\text{m}^2/\text{day}$ emission rate would be—

$$(31882.3 \text{ g} - 31813.8 \text{ g}) / 0.72 \text{ m}^2 / 14.03 \text{ days} = 6.78 \text{ g}/\text{m}^2/\text{day}.$$

(9) Round your result to the same number of decimal places as the emission standard.

(10) In cases where consideration of permeation rates, using good engineering judgment, leads you to conclude that soaking for 14 days is not long enough to measure weight change to at least three significant figures, you may soak for 14 days longer. In this case, repeat the steps in paragraphs (b)(8) and (9) of this section to determine the weight change for the full 28 days.

* * * * *

(d) * * *

(2) *UV exposure.* Perform a sunlight-exposure test by exposing the tank to an ultraviolet light of at least $24 \text{ W}/\text{m}^2$ ($0.40 \text{ W-hr}/\text{m}^2/\text{min}$) on the tank surface for at least 450 hours. Alternatively, the fuel tank may be exposed to direct natural sunlight for an equivalent period of time, as long as you ensure that the tank is exposed to at least 450 daylight hours.

* * * * *

■ 308. Section 1051.520 is revised to read as follows:

§ 1051.520 How do I perform exhaust durability testing?

Sections 1051.240 and 1051.243 describe the method for testing that must be performed to establish deterioration factors for an engine family.

■ 309. Section 1051.605 is revised to read as follows:

§ 1051.605 What provisions apply to engines already certified under the motor-vehicle program or the Large Spark-ignition program?

(a) *General provisions.* If you are an engine manufacturer, this section allows you to introduce into commerce new recreational vehicles, and engines for recreational vehicles, if the engines are already certified to the requirements that apply to spark-ignition engines under 40 CFR parts 85 and 86 or 40 CFR part 1048 for the appropriate model year. If you comply with all the provisions of this section, we consider the certificate issued under 40 CFR part

86 or 1048 for each engine to also be a valid certificate of conformity under this part 1051 for its model year, without a separate application for certification under the requirements of this part 1051. See § 1051.610 for similar provisions that apply to vehicles that are already certified to the vehicle-based standards for motor vehicles.

(b) *Vehicle-manufacturer provisions.*

If you are not an engine manufacturer, you may install an engine certified for the appropriate model year under 40 CFR part 86 or 1048 in a recreational vehicle as long as you meet all the requirements and conditions specified in paragraph (d) of this section. If you modify the non-recreational engine in any of the ways described in paragraph (d)(2) of this section for installation in a recreational vehicle, we will consider you a manufacturer of recreational vehicles. Such engine modifications prevent you from using the provisions of this section.

(c) *Liability.* Engines for which you meet the requirements of this section are exempt from all the requirements and prohibitions of this part, except for those specified in this section. Engines exempted under this section must meet all the applicable requirements from 40 CFR parts 85 and 86 or 40 CFR part 1048. This paragraph (c) applies to engine manufacturers, vehicle manufacturers who use such an engine, and all other persons as if the engine were used in its originally intended application. The prohibited acts of 40 CFR 1068.101(a)(1) apply to these new engines and vehicles; however, we consider the certificate issued under 40 CFR part 86 or 1048 for each engine to also be a valid certificate of conformity under this part 1051 for its model year. If we make a determination that these engines do not conform to the regulations during their useful life, we may require you to recall them under this part 1051 or under 40 CFR part 85 or 1068.505.

(d) *Specific requirements.* If you are an engine or vehicle manufacturer and meet all the following criteria and requirements regarding your new engine or vehicle, the vehicle using the engine is eligible for an exemption under this section:

(1) Your engine must be covered by a valid certificate of conformity issued under 40 CFR part 86 or 1048.

(2) You must not make any changes to the certified engine that could reasonably be expected to increase its exhaust emissions for any pollutant, or its evaporative emissions. For example, if you make any of the following changes to one of these engines, you do not qualify for this exemption:

(i) Change any fuel system or evaporative system parameters from the certified configuration (this does not apply to refueling controls).

(ii) Change, remove, or fail to properly install any other component, element of design, or calibration specified in the engine manufacturer's application for certification. This includes aftertreatment devices and all related components.

(iii) Modify or design the engine cooling system so that temperatures or heat rejection rates are outside the original engine manufacturer's specified ranges.

(3) You must show that fewer than 50 percent of the engine family's total sales in the United States are used in recreational vehicles. This includes engines used in any application, without regard to which company manufactures the vehicle or equipment. Show this as follows:

(i) If you are the original manufacturer of the engine, base this showing on your sales information.

(ii) In all other cases, you must get the original manufacturer of the engine to confirm this based on its sales information.

(4) You must ensure that the engine has the emission control information label we require under 40 CFR part 86 or 1048.

(5) You must add a permanent supplemental label to the engine in a position where it will remain clearly visible after installation in the vehicle. In the supplemental label, do the following:

(i) Include the heading: "RECREATIONAL VEHICLE EMISSION CONTROL INFORMATION".

(ii) Include your full corporate name and trademark. You may instead include the full corporate name and trademark of another company you choose to designate.

(iii) State: "THIS ENGINE WAS ADAPTED FOR A RECREATIONAL USE WITHOUT AFFECTING ITS EMISSION CONTROLS."

(iv) State the date you finished installation (month and year), if applicable.

(6) The original and supplemental labels must be readily visible after the engine is installed in the vehicle or, if the vehicle obscures the engine's emission control information label, the make sure the vehicle manufacturer attaches duplicate labels, as described in 40 CFR 1068.105.

(7) Send the Designated Compliance Officer a signed letter by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the engine or vehicle models you expect to produce under this exemption in the coming year.

(iii) State: "We produce each listed [engine or vehicle] model for recreational application without making any changes that could increase its certified emission levels, as described in 40 CFR 1051.605."

(e) *Failure to comply.* If your engines do not meet the criteria listed in paragraph (d) of this section, they will be subject to the standards, requirements, and prohibitions of this part 1051 and the certificate issued under 40 CFR part 86 or 1048 will not be deemed to also be a certificate issued under this part 1051. Introducing these engines into commerce without a valid exemption or certificate of conformity under this part violates the prohibitions in 40 CFR 1068.101(a)(1).

(f) *Data submission.* We may require you to send us emission test data on any applicable nonroad duty cycles.

(g) *Participation in averaging, banking and trading.* Engines or vehicles adapted for recreational use under this section may not generate or use emission credits under this part 1051. These engines or vehicles may generate credits under the ABT provisions in 40 CFR part 86. These engines or vehicles must use emission credits under 40 CFR part 86 if they are certified to an FEL that exceeds an applicable standard.

■ 310. Section 1051.610 is revised to read as follows:

§ 1051.610 What provisions apply to vehicles already certified under the motor-vehicle program?

(a) *General provisions.* If you are a motor-vehicle manufacturer, this section allows you to introduce new recreational vehicles into commerce if the vehicle is already certified to the requirements that apply under 40 CFR parts 85 and 86. If you comply with all of the provisions of this section, we consider the certificate issued under 40 CFR part 86 for each motor vehicle to also be a valid certificate of conformity for the engine under this part 1051 for its model year, without a separate application for certification under the requirements of this part 1051. This section applies especially for highway motorcycles that are modified for recreational nonroad use. See § 1051.605 for similar provisions that apply to motor-vehicle engines or Large SI engines produced for recreational vehicles.

(b) *Nonroad vehicle-manufacturer provisions.* If you are not a motor-vehicle manufacturer, you may produce

recreational vehicles from motor vehicles under this section as long as you meet all the requirements and conditions specified in paragraph (d) of this section. If you modify the motor vehicle or its engine in any of the ways described in paragraph (d)(2) of this section, we will consider you a manufacturer of a new recreational vehicle. Such modifications prevent you from using the provisions of this section.

(c) *Liability.* Engines and vehicles for which you meet the requirements of this section are exempt from all the requirements and prohibitions of this part, except for those specified in this section. Engines exempted under this section must meet all the applicable requirements from 40 CFR parts 85 and 86. This applies to engine manufacturers, vehicle manufacturers, and all other persons as if the recreational vehicles were motor vehicles. The prohibited acts of 40 CFR 1068.101(a)(1) apply to these new recreational vehicles; however, we consider the certificate issued under 40 CFR part 86 for each motor vehicle to also be a valid certificate of conformity for the recreational vehicle under this part 1051 for its model year. If we make a determination that these engines or vehicles do not conform to the regulations during their useful life, we may require you to recall them under 40 CFR part 86 or 40 CFR 1068.505.

(d) *Specific requirements.* If you are a motor-vehicle manufacturer and meet all the following criteria and requirements regarding your new recreational vehicle and its engine, the vehicle is eligible for an exemption under this section:

(1) Your vehicle must be covered by a valid certificate of conformity as a motor vehicle issued under 40 CFR part 86.

(2) You must not make any changes to the certified vehicle that we could reasonably expect to increase its exhaust emissions for any pollutant, or its evaporative emissions if it is subject to evaporative-emission standards. For example, if you make any of the following changes, you do not qualify for this exemption:

(i) Change any fuel system parameters from the certified configuration.

(ii) Change, remove, or fail to properly install any other component, element of design, or calibration specified in the vehicle manufacturer's application for certification. This includes aftertreatment devices and all related components.

(iii) Modify or design the engine cooling system so that temperatures or heat rejection rates are outside the

original vehicle manufacturer's specified ranges.

(iv) Add more than 500 pounds to the curb weight of the originally certified motor vehicle.

(3) You must show that fewer than 50 percent of the engine family's total sales in the United States are used in recreational vehicles. This includes any type of vehicle, without regard to which company completes the manufacturing of the recreational vehicle. Show this as follows:

(i) If you are the original manufacturer of the vehicle, base this showing on your sales information.

(ii) In all other cases, you must get the original manufacturer of the vehicle to confirm this based on their sales information.

(4) The vehicle must have the vehicle emission control information we require under 40 CFR part 86.

(5) You must add a permanent supplemental label to the vehicle in a position where it will remain clearly visible. In the supplemental label, do the following:

(i) Include the heading: "RECREATIONAL VEHICLE ENGINE EMISSIONCONTROL INFORMATION".

(ii) Include your full corporate name and trademark. You may instead include the full corporate name and trademark of another company you choose to designate.

(iii) State: "THIS VEHICLE WAS ADAPTED FOR RECREATIONAL USEWITHOUT AFFECTING ITS EMISSION CONTROLS."

(iv) State the date you finished modifying the vehicle (month and year), if applicable.

(6) The original and supplemental labels must be readily visible in the fully assembled vehicle.

(7) Send the Designated Compliance Officer a signed letter by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the vehicle models you expect to produce under this exemption in the coming year.

(iii) State: "We produced each listed engine or vehicle model for recreational application without making any changes that could increase its certified emission levels, as described in 40 CFR 1051.610."

(e) *Failure to comply.* If your engines or vehicles do not meet the criteria listed in paragraph (d) of this section, the engines will be subject to the standards, requirements, and prohibitions of this part 1051, and the certificate issued under 40 CFR part 86 will not be deemed to also be a certificate issued under this part 1051. Introducing these engines into commerce without a valid exemption or certificate of conformity under this part violates the prohibitions in 40 CFR 1068.101(a)(1).

(f) *Data submission.* We may require you to send us emission test data on any applicable nonroad duty cycles.

(g) *Participation in averaging, banking and trading.* Vehicles adapted for recreational use under this section may not generate or use emission credits under this part 1051. These engines may generate credits under the ABT provisions in 40 CFR part 86. These engines must use emission credits under 40 CFR part 86 if they are certified to an FEL that exceeds an applicable standard.

■ 311. Section 1051.615 is amended by revising paragraphs (a) introductory text, (b)introductory text, and (d) to read as follows:

§ 1051.615 What are the special provisions for certifying small recreational engines?

(a) You may certify ATVs with engines that have total displacement of less than 100 ccto the following exhaust emission standards instead of certifying them to the exhaust emission standards of subpart B of this part:

* * * * *

(b) You may certify off-highway motorcycles with engines that have total displacement of 70 cc or less to the following exhaust emission standards instead of certifying them to the exhaust emission standards of subpart B of this part:

* * * * *

(d) Measure steady-state emissions by testing the engine on an engine dynamometer using the equipment and procedures of 40 CFR part 1065 with either discrete-mode or ramped-modal cycles. You must use the type of testing you select in your application for certification for all testing you perform for that engine family. If we test your engines to confirm that they meet emission standards, we will do testing the same way. We may also perform other testing as allowed by the Clean Air Act. Measure steady-state emissions as follows:

(1) For discrete-mode testing, sample emissions separately for each mode, then calculate an average emission level for the whole cycle using the weighting factors specified for each mode. In each mode, operate the engine for at least 5 minutes, then sample emissions for at least 1 minute. Calculate cycle statistics for the sequence of modes and compare with the specified values in 40 CFR 1065.514 to confirm that the test is valid.

(2) 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.

(3) Measure emissions by testing the engine on a dynamometer with one or more of the following sets of duty cycles to determine whether it meets applicable emission standards:

(i) The following duty cycle applies for discrete-mode testing:

TABLE 1 OF § 1051.615.—6-MODE DUTY CYCLE FOR RECREATIONAL ENGINES

Mode No.	Engine speed (percent) ¹	Torque (percent) ²	Minimum time in mode (minutes)	Weighting factors
1	85	100	5.0	0.09
2	85	75	5.0	0.20
3	85	50	5.0	0.29
4	85	25	5.0	0.30
5	85	10	5.0	0.07
6	(³)	0	5.0	0.05

¹ Percent speed is percent of maximum test speed.

² Percent torque is percent of maximum test torque at maximum test speed.

³Idle.

(ii) The following duty cycle applies for ramped-modal testing:

TABLE 2 OF § 1051.615.—RAMPED-MODAL CYCLE FOR TESTING RECREATIONAL ENGINES

RMC mode	Time	Speed (percent) ^{1 2}	Torque (percent) ^{2 3}
1a Steady-state	41	Warm Idle	0
1b Transition	20	Linear Transition	Linear Transition.
2a Steady-state	135	85	100
2b Transition	20	85	Linear Transition.
3a Steady-state	112	85	10
3b Transition	20	85	Linear Transition.
4a Steady-state	337	85	75
4b Transition	20	85	Linear Transition.
5a Steady-state	518	85	25
5b Transition	20	85	Linear Transition.
6a Steady-state	494	85	50
6b Transition	20	Linear Transition	Linear Transition.
7 Steady-state	43	Warm Idle	0

¹ Percent speed is percent of maximum test speed.

² Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

³ Percent torque is percent of maximum test torque at the commanded test speed.

(4) During idle mode, hold the speed within your specifications, keep the throttle fully closed, and keep engine torque under 5 percent of the peak torque value at maximum test speed.

(5) For the full-load operating mode, operate the engine at wide-open throttle.

(6) See 40 CFR part 1065 for detailed specifications of tolerances and calculations.

* * * * *

■ 312. Section 1051.620 is amended by revising paragraph (b)(1)(vi) to read as follows:

§ 1051.620 When may a manufacturer obtain an exemption for competition recreational vehicles?

* * * * *

- (b) * * *
- (1) * * *

(vi) The absence of a functional seat. (For example, a seat with less than 30 square inches of seating surface would generally not be considered a functional seat).

* * * * *

■ 313. A new § 1051.645 is added to subpart G to read as follows:

§ 1051.645 What special provisions apply to branded engines?

The following provisions apply if you identify the name and trademark of another company instead of your own on your emission control information label, as provided by § 1051.135(c)(2):

(a) You must have a contractual agreement with the other company that obligates that company to take the following steps:

(1) Meet the emission warranty requirements that apply under § 1051.120. This may involve a separate

agreement involving reimbursement of warranty-related expenses.

(2) Report all warranty-related information to the certificate holder.

(b) In your application for certification, identify the company whose trademark you will use and describe the arrangements you have made to meet your requirements under this section.

(c) You remain responsible for meeting all the requirements of this chapter, including warranty and defect-reporting provisions.

■ 314. Section 1051.701 is amended by revising paragraphs (a), (c), and (d) and adding paragraphs (e), (f), and (g) to read as follows:

§ 1051.701 General provisions.

(a) You may average, bank, and trade emission credits for purposes of certification as described in this subpart to show compliance with the standards of this part. To do this you must certify your engines to Family Emission Limits (FELs) and show that your average emission levels are below the applicable standards in subpart B of this part, or that you have sufficient credits to offset a credit deficit for the model year (as calculated in § 1051.720).

* * * * *

(c) The definitions of Subpart I of this part apply to this subpart. The following definitions also apply:

(1) *Actual emission credits* means emission credits you have generated that we have verified by reviewing your final report.

(2) *Average standard* means a standard that allows you comply by averaging all your vehicles under this part. See subpart B of this part to

determine which standards are average standards.

(3) *Averaging set* means a set of engines in which emission credits may be exchanged only with other engines in the same averaging set.

(4) *Broker* means any entity that facilitates a trade of emission credits between a buyer and seller.

(5) *Buyer* means the entity that receives emission credits as a result of a trade.

(6) *Reserved emission credits* means emission credits you have generated that we have not yet verified by reviewing your final report.

(7) *Seller* means the entity that provides emission credits during a trade.

(8) *Trade* means to exchange emission credits, either as a buyer or seller.

(d) In your application for certification, base your showing of compliance on projected production volumes for vehicles whose point of first retail sale is in the United States. As described in § 1051.730, compliance with the requirements of this subpart is determined at the end of the model year based on actual production volumes for vehicles whose point of first retail sale is in the United States. Do not include any of the following vehicles to calculate emission credits:

(1) Vehicles exempted under subpart G of this part or under 40 CFR part 1068.

(2) Exported vehicles.

(3) Vehicles not subject to the requirements of this part, such as those excluded under § 1051.5.

(4) Vehicles for which the location of first retail sale is in a state that has applicable state emission regulations for

that model year. However, this restriction does not apply if we determine that the state standards and requirements are equivalent to those of this part and that these vehicles sold in such a state will not generate credits under the state program. For example, you may not include vehicles certified for California if it has more stringent emission standards for these vehicles or those vehicles generate or use emission credits under the California program.

(5) Any other vehicles, where we indicate elsewhere in this part 1051 that they are not to be included in the calculations of this subpart.

(e) You may not use emission credits generated under this subpart to offset any emissions that exceed an FEL or standard, except as specified in § 1051.225(f)(1). This applies for all testing, including certification testing, in-use testing, selective enforcement audits, and other production-line testing.

(f) Emission credits may be used in the model year they are generated or in future model years. Emission credits may not be used for past model years.

(g) You may increase or decrease an FEL during the model year by amending your application for certification under § 1051.225.

■ 315. Section 1051.705 is amended by revising paragraphs (a), (b), and (c) and adding paragraph (e) to read as follows:

§ 1051.705 How do I average emission levels?

(a) As specified in subpart B of this part, certify each vehicle to an FEL, subject to the FEL caps in subpart B of this part.

(b) Calculate a preliminary average emission level according to § 1051.720 for each averaging set using projected U.S.-directed production volumes from your application for certification, excluding vehicles described in § 1051.701(d)(4).

(c) After the end of your model year, calculate a final average emission level according to § 1051.720 for each type of recreational vehicle or engine you manufacture or import. Use actual U.S.-

directed production volumes, excluding vehicles described in § 1051.701(d)(4).

* * * * *

(e) If your average emission level is above the allowable average standard, you must obtain enough emission credits to offset the deficit by the due date for the final report required in § 1051.730. The emission credits used to address the deficit may come from emission credits you have banked or from emission credits you obtain through trading.

■ 316. Section 1051.710 is revised to read as follows:

§ 1051.710 How do I generate and bank emission credits?

(a) Banking is the retention of emission credits by the manufacturer generating the emission credits for use in averaging or trading in future model years. You may use banked emission credits only within the averaging set in which they were generated.

(b) If your average emission level is below the average standard, you may calculate credits according to § 1051.720. Credits you generate do not expire.

(c) You may generate credits if you are a certifying manufacturer.

(d) In your application for certification, designate any emission credits you intend to bank. These emission credits will be considered reserved credits. During the model year and before the due date for the final report, you may redesignate these emission credits for averaging or trading.

(e) You may use banked emission credits from the previous model year for averaging or trading before we verify them, but we may revoke these emission credits if we are unable to verify them after reviewing your reports or auditing your records.

(f) Reserved credits become actual emission credits only when we verify them in reviewing your final report.

■ 317. Section 1051.715 is revised to read as follows:

§ 1051.715 How do I trade emission credits?

(a) Trading is the exchange of emission credits between manufacturers. You may use traded emission credits for averaging, banking, or further trading transactions. Traded emission credits may be used only within the averaging set in which they were generated.

(b) You may trade banked credits to any certifying manufacturer.

(c) You may trade actual emission credits as described in this subpart. You may also trade reserved emission credits, but we may revoke these emission credits based on our review of your records or reports or those of the company with which you traded emission credits.

(d) If a negative emission credit balance results from a transaction, both the buyer and seller are liable, except in cases we deem to involve fraud. See § 1051.255(e) for cases involving fraud. We may void the certificates of all engine families participating in a trade that results in a manufacturer having a negative balance of emission credits. See § 1051.745.

■ 318. Section 1051.720 is amended by revising paragraphs (a)(2) and (a)(3) and adding paragraph (a)(4) to read as follows:

§ 1051.720 How do I calculate my average emission level or emission credits?

(a) * * *

(2) For vehicles that have standards expressed as g/kW-hr and a useful life in kilometers, convert the useful life to kW-hr based on the maximum power output observed over the emission test and an assumed vehicle speed of 30 km/hr as follows: $UL (kW-hr) = UL (km) \times \text{Maximum Test Power (kW)} \div km/hr$. (Note: It is not necessary to include a load factor, since credit exchange is not allowed between vehicles certified to g/kW-hr standards and vehicles certified to g/km standards.)

(3) For evaporative emission standards expressed as g/m²/day, use the useful life value in years multiplied by 365.24 and calculate the average emission level as:

$$\text{Emission level} = \left[\sum_i (\text{FEL})_i \times (\text{UL})_i \times (\text{Production})_i \right] / \left[\sum_i (\text{Production})_i \times (\text{UL})_i \right]$$

Where:

FEL_i = The FEL to which the engine family is certified, as described in paragraph (a)(4) of this section.

Production_i = The number of vehicles in the engine family times the average internal surface area of the vehicles' fuel tanks.

(4) Determine the FEL for calculating credits under paragraph (a)(3) of this section using any of the following values:

(i) The FEL to which the tank is certified, as long as the FEL is at or below 3.0 g/m²/day.

(ii) 10.4 g/m²/day. However, if you use this value to establish the FEL for any of your tanks, you must use this value to establish the FEL for every tank not covered by paragraph (a)(4)(i) of this section.

(iii) The measured permeation rate of the tank or the measured permeation rate of a thinner-walled tank of the same material. However, if you use this approach to establish the FEL for any of your tanks, you must establish an FEL based on emission measurements for every tank not covered by paragraph (a)(4)(i) of this section.

* * * * *

■ 319. Section 1051.725 is revised to read as follows:

§ 1051.725 What must I include in my applications for certification?

(a) You must declare in your applications for certification your intent to use the provisions of this subpart. You must also declare the FELs you select for each engine family. Your FELs must comply with the specifications of subpart B of this part, including the FEL caps. FELs must be expressed to the same number of decimal places as the applicable standards.

(b) Include the following in your application for certification:

(1) A statement that, to the best of your belief, you will not have a negative balance of emission credits for any averaging set when all emission credits are calculated at the end of the year. This means that if you believe that your average emission level will be above the standard (*i.e.*, that you will have a deficit for the model year), you must have banked credits (or project to have received traded credits) to offset the deficit.

(2) Detailed calculations of projected emission credits (positive or negative) based on projected production volumes. If you will generate positive emission credits, state specifically where the emission credits will be applied (for example, whether they will be traded or reserved for banking). If you have projected negative emission credits, state the source of positive emission credits to offset the negative emission credits. Describe whether the emission credits are actual or reserved and whether they will come from banking, trading, or a combination of these. If you intend to rely on trading, identify from which manufacturer the emission credits will come.

■ 320. Section 1051.730 is revised to read as follows:

§ 1051.730 What ABT reports must I send to EPA?

(a) If any of your engine families are certified using the ABT provisions of this subpart, you must send an end-of-year report within 90 days after the end of the model year and a final report within 270 days after the end of the model year. We may waive the requirement to send the end-of-year report, as long as you send the final report on time.

(b) Your end-of-year and final reports must include the following information for each engine family:

(1) Engine-family designation.

(2) The emission standards that would otherwise apply to the engine family.

(3) The FEL for each pollutant. If you changed an FEL during the model year, identify each FEL you used and calculate the positive or negative emission credits under each FEL. Also, describe how the applicable FEL can be identified for each vehicle you produced. For example, you might keep a list of vehicle identification numbers that correspond with certain FEL values.

(4) The projected and actual production volumes for the model year with a point of retail sale in the United States. If you changed an FEL during the model year, identify the actual production volume associated with each FEL.

(5) For vehicles that have standards expressed as g/kW-hr, maximum engine power for each vehicle configuration, and the sales-weighted average engine power for the engine family.

(6) Useful life.

(7) Calculated positive or negative emission credits. Identify any emission credits that you traded, as described in paragraph (d)(1) of this section.

(c) Your end-of-year and final reports must include the following additional information:

(1) Show that your net balance of emission credits in each averaging set in the applicable model year is not negative.

(2) State whether you will reserve any emission credits for banking.

(3) State that the report's contents are accurate.

(d) If you trade emission credits, you must send us a report within 90 days after the transaction, as follows:

(1) As the seller, you must include the following information in your report:

(i) The corporate names of the buyer and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) The engine families that generated emission credits for the trade, including the number of emission credits from each family.

(2) As the buyer, you must include the following information in your report:

(i) The corporate names of the seller and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) How you intend to use the emission credits, including the number of emission credits you intend to apply to each engine family (if known).

(e) Send your reports electronically to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

(f) Correct errors in your end-of-year report or final report as follows:

(1) You may correct any errors in your end-of-year report when you prepare the final report, as long as you send us the final report by the time it is due.

(2) If you or we determine within 270 days after the end of the model year that errors mistakenly decrease your balance of emission credits, you may correct the errors and recalculate the balance of emission credits. You may not make these corrections for errors that are determined more than 270 days after the end of the model year. If you report a negative balance of emission credits, we may disallow corrections under this paragraph (f)(2).

(3) If you or we determine anytime that errors mistakenly increase your balance of emission credits, you must correct the errors and recalculate the balance of emission credits.

■ 321. Section 1051.735 is revised to read as follows:

§ 1051.735 What records must I keep?

(a) You must organize and maintain your records as described in this section. We may review your records at any time.

(b) Keep the records required by this section for eight years after the due date for the end-of-year report. You may use any appropriate storage formats or media, including paper, microfilm, or computer diskettes.

(c) Keep a copy of the reports we require in § 1051.725 and § 1051.730.

(d) Keep the following additional records for each engine you produce under the ABT program:

(1) Engine family designation.

(2) Engine identification number.

(3) FEL and useful life.

(4) For vehicles that have standards expressed as g/kW-hr, maximum engine power.

(5) Build date and assembly plant.

(6) Purchaser and destination.

(e) We may require you to keep additional records or to send us relevant information not required by this section.

■ 322. A new § 1051.740 is added to subpart H to read as follows:

§ 1051.740 Are there special averaging provisions for snowmobiles?

For snowmobiles, you may only use credits for the same phase or set of standards against which they were generated, except as allowed by this section.

(a) *Restrictions.* (1) You may not use any Phase 1 or Phase 2 credits for Phase 3 compliance.

(2) You may not use Phase 1 HC credits for Phase 2 HC compliance. However, because the Phase 1 and Phase 2 CO standards are the same, you may use Phase 1 CO credits for compliance with the Phase 2 CO standards.

(b) *Special credits for next phase of standards.* You may choose to generate credits early for banking for purposes of compliance with later phases of standards as follows:

(1) If your corporate average emission level at the end of the model year exceeds the applicable (current) phase of standards (without the use of traded or previously banked credits), you may choose to redesignate some of your snowmobile production to a calculation to generate credits for a future phase of standards. To generate credits the snowmobiles designated must have an FEL below the emission level of that set of standards. This can be done on a pollutant specific basis.

(2) Do not include the snowmobiles that you redesignate in the final compliance calculation of your average emission level for the otherwise applicable (current) phase of standards. Your average emission level for the remaining (non-redesignated) snowmobiles must comply with the otherwise applicable (current) phase of standards.

(3) Include the snowmobiles that you redesignate in a separate calculation of your average emission level for redesignated engines. Calculate credits using this average emission level relative to the specific pollutant in the future phase of standards. These credits may be used for compliance with the future standards.

(4) For generating early Phase 3 credits, you may generate credits for HC+NO_x or CO separately as described:

(i) To determine if you qualify to generate credits in accordance with paragraphs (b)(1) through (3) of this section, you must meet the credit trigger level. For HC+NO_x this value is 62 g/kW-hr (which would be the HC+NO_x standard that would result from inputting the highest allowable CO standard (275 g/kW-hr) into the Phase 3

equation). For CO the value is 200 g/kW-hr (which would be the CO standard that would result from inputting the highest allowable HC+NO_x standard (90 g/kW-hr) into the Phase 3 equation).

(ii) HC+NO_x and CO credits for Phase 3 are calculated relative to the 62 g/kW-hr and 200 g/kW-hr values, respectively.

(5) Credits can also be calculated for Phase 3 using both sets of standards. Without regard to the trigger level values, if your net emission reduction for the redesignated averaging set exceeds the requirements of Phase 3 in § 1051.103 (using both HC+NO_x and CO in the Phase 3 equation in § 1051.103), then your credits are the difference between the Phase 3 reduction requirement of that section and your calculated value.

■ 323. A new § 1051.745 is added to subpart H to read as follows:

§ 1051.745 What can happen if I do not comply with the provisions of this subpart?

(a) For each engine family participating in the ABT program, the certificate of conformity is conditional upon full compliance with the provisions of this subpart during and after the model year. You are responsible to establish to our satisfaction that you fully comply with applicable requirements. We may void the certificate of conformity for an engine family if you fail to comply with any provisions of this subpart.

(b) You may certify your engine family to an FEL above an applicable standard based on a projection that you will have enough emission credits to avoid a negative credit balance for each averaging set for the applicable model year. However, except as allowed in § 1051.145(h), we may void the certificate of conformity if you cannot show in your final report that you have enough actual emission credits to offset a deficit for any pollutant in an engine family.

(c) We may void the certificate of conformity for an engine family if you fail to keep records, send reports, or give us information we request.

(d) You may ask for a hearing if we void your certificate under this section (see § 1051.820).

■ 324. Section 1051.801 is revised to read as follows:

§ 1051.801 What definitions apply to this part?

The following definitions apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Act gives to them. The definitions follow:

Act means the Clean Air Act, as amended, 42 U.S.C. 7401–7671q.

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. This includes, but is not limited to, parameters related to injection timing and fueling rate. You may ask us to exclude a parameter that is difficult to access if it cannot be adjusted to affect emissions without significantly degrading engine performance, or if you otherwise show us that it will not be adjusted in a way that affects emissions during in-use operation.

Aftertreatment means relating to a catalytic converter, particulate filter, or any other system, component, or technology mounted downstream of the exhaust valve (or exhaust port) whose design function is to decrease emissions in the engine exhaust before it is exhausted to the environment. Exhaust-gas recirculation (EGR) and turbochargers are not aftertreatment.

All-terrain vehicle means a land-based or amphibious nonroad vehicle that meets the criteria listed in paragraph (1) of this definition; or, alternatively the criteria of paragraph (2) of this definition but not the criteria of paragraph (3) of this definition:

(1) Vehicles designed to travel on four low pressure tires, having a seat designed to be straddled by the operator and handlebars for steering controls, and intended for use by a single operator and no other passengers are all-terrain vehicles.

(2) Other all-terrain vehicles have three or more wheels and one or more seats, are designed for operation over rough terrain, are intended primarily for transportation, and have a maximum vehicle speed of 25 miles per hour or higher. Golf carts generally do not meet these criteria since they are generally not designed for operation over rough terrain.

(3) Vehicles that meet the definition of “offroad utility vehicle” in this section are not all-terrain vehicles. However, § 1051.1(a) specifies that some offroad utility vehicles are required to meet the same requirements as all-terrain vehicles.

Amphibious vehicle means a vehicle with wheels or tracks that is designed primarily for operation on land and secondarily for operation in water.

Auxiliary emission-control device means any element of design that senses temperature, motive speed, engine RPM, transmission gear, or any other parameter for the purpose of activating, modulating, delaying, or deactivating

the operation of any part of the emission-control system.

Brake power means the usable power output of the engine, not including power required to fuel, lubricate, or heat the engine, circulate coolant to the engine, or to operate aftertreatment devices.

Calibration means the set of specifications and tolerances specific to a particular design, version, or application of a component or assembly capable of functionally describing its operation over its working range.

Certification means relating to the process of obtaining a certificate of conformity for an engine family that complies with the emission standards and requirements in this part.

Certified emission level means the highest deteriorated emission level in an engine family for a given pollutant from either transient or steady-state testing.

Compression-ignition means relating to a type of reciprocating, internal-combustion engine that is not a spark-ignition engine.

Crankcase emissions means airborne substances emitted to the atmosphere from any part of the engine crankcase's ventilation or lubrication systems. The crankcase is the housing for the crankshaft and other related internal parts.

Critical emission-related component means any of the following components:

(1) Electronic control units, aftertreatment devices, fuel-metering components, EGR-system components, crankcase-ventilation valves, all components related to charge-air compression and cooling, and all sensors and actuators associated with any of these components.

(2) Any other component whose primary purpose is to reduce emissions.

Designated Compliance Officer means the Manager, Engine Programs Group (6405-J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Designated Enforcement Officer means the Director, Air Enforcement Division (2242A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Deteriorated emission level means the emission level that results from applying the appropriate deterioration factor to the official emission result of the emission-data vehicle.

Deterioration factor means the relationship between emissions at the end of useful life and emissions at the low-hour test point, expressed in one of the following ways:

(1) For multiplicative deterioration factors, the ratio of emissions at the end

of useful life to emissions at the low-hour test point.

(2) For additive deterioration factors, the difference between emissions at the end of useful life and emissions at the low-hour test point.

Emission-control system means any device, system, or element of design that controls or reduces the regulated emissions from an engine.

Emission-data vehicle means a vehicle or engine that is tested for certification. This includes vehicles or engines tested to establish deterioration factors.

Emission-related maintenance means maintenance that substantially affects emissions or is likely to substantially affect emission deterioration.

Engine configuration means a unique combination of engine hardware and calibration within an engine family. Engines within a single engine configuration differ only with respect to normal production variability.

Engine family has the meaning given in § 1051.230.

Evaporative means relating to fuel emissions that result from permeation of fuel through the fuel system materials and from ventilation of the fuel system.

Excluded means relating to an engine that either:

(1) Has been determined not to be a nonroad engine, as specified in 40 CFR 1068.30; or

(2) Is a nonroad engine that is excluded from this part 1051 under the provisions of § 1051.5.

Exempted has the meaning given in 40 CFR 1068.30.

Exhaust-gas recirculation means a technology that reduces emissions by routing exhaust gases that had been exhausted from the combustion chamber(s) back into the engine to be mixed with incoming air before or during combustion. The use of valve timing to increase the amount of residual exhaust gas in the combustion chamber(s) that is mixed with incoming air before or during combustion is not considered exhaust-gas recirculation for the purposes of this part.

Family emission limit (FEL) means an emission level declared by the manufacturer to serve in place of an otherwise applicable emission standard under the ABT program in subpart H of this part. 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 with respect to all required testing.

Fuel line means all hoses or tubing designed to contain liquid fuel or fuel vapor. This includes all hoses or tubing

for the filler neck, for connections between dual fuel tanks, and for connecting a carbon canister to the fuel tank. This does not include hoses or tubing for routing crankcase vapors to the engine's intake or any other hoses or tubing that are open to the atmosphere.

Fuel system means all components involved in transporting, metering, and mixing the fuel from the fuel tank to the combustion chamber(s), including the fuel tank, fuel tank cap, fuel pump, fuel filters, fuel lines, carburetor or fuel-injection components, and all fuel-system vents. In the case where the fuel tank cap or other components (excluding fuel lines) are directly mounted on the fuel tank, they are considered to be a part of the fuel tank.

Fuel type means a general category of fuels such as gasoline or natural gas. There can be multiple grades within a single fuel type, such as winter-grade and all-season gasoline.

Good engineering judgment means judgments made consistent with generally accepted scientific and engineering principles and all available relevant information. See 40 CFR 1068.5 for the administrative process we use to evaluate good engineering judgment.

Hydrocarbon (HC) means the hydrocarbon group on which the emission standards are based for each fuel type. For alcohol-fueled engines, HC means total hydrocarbon equivalent (THCE). For all other engines, HC means nonmethane hydrocarbon (NMHC).

Identification number means a unique specification (for example, a model number/serial number combination) that allows someone to distinguish a particular vehicle or engine from other similar engines.

Low-hour means relating to an engine with stabilized emissions and represents the undeteriorated emission level. This would generally involve less than 24 hours or 240 kilometers of operation.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a vehicle or engine for sale in the United States or otherwise introduces a new vehicle or engine into commerce in the United States. This includes importers that import vehicles or engines for resale.

Maximum engine power has the meaning given in 40 CFR 90.3.

Maximum test power means the maximum brake power of an engine at test conditions.

Maximum test speed has the meaning given in 40 CFR 1065.1001.

Maximum test torque has the meaning given in 40 CFR 1065.1001.

Model year means one of the following things:

(1) For freshly manufactured vehicles (see definition of "new," paragraph (1)), model year means one of the following:

(i) Calendar year.

(ii) Your annual new model production period if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine originally manufactured as a motor-vehicle engine or a stationary engine that is later intended to be used in a vehicle subject to the standards and requirements of this part 1051, model year means the calendar year in which the engine was originally produced (see definition of "new," paragraph (2)).

(3) For a nonroad engine that has been previously placed into service in an application covered by 40 CFR part 90, 91, or 1048, where that engine is installed in a piece of equipment that is covered by this part 1051, model year means the calendar year in which the engine was originally produced (see definition of "new," paragraph (3)).

(4) For engines that are not freshly manufactured but are installed in new recreational vehicles, model year means the calendar year in which the engine is installed in the recreational vehicle (see definition of "new," paragraph (4)).

(5) For imported engines:

(i) For imported engines described in paragraph (5)(i) of the definition of "new," model year has the meaning given in paragraphs (1) through (4) of this definition.

(ii) For imported engines described in paragraph (5)(ii) of the definition of "new," model year means the calendar year in which the vehicle is modified.

Motor vehicle has the meaning given in 40 CFR 85.1703(a).

New means relating to any of the following things:

(1) A freshly manufactured vehicle for which the ultimate purchaser has never received the equitable or legal title. This kind of vehicle might commonly be thought of as "brand new." In the case of this paragraph (1), the vehicle becomes new when it is fully assembled for the first time. The engine is no longer new when the ultimate purchaser receives the title or the product is placed into service, whichever comes first.

(2) An engine originally manufactured as a motor-vehicle engine or a stationary engine that is later intended to be used in a vehicle subject to the standards and requirements of this part 1051. In this case, the engine is no longer a motor-

vehicle or stationary engine and becomes new. The engine is no longer new when it is placed into service as a recreational vehicle covered by this part 1051.

(3) A nonroad engine that has been previously placed into service in an application covered by 40 CFR part 90, 91, or 1048, where that engine is installed in a piece of equipment that is covered by this part 1051. The engine is no longer new when it is placed into service in a recreational vehicle covered by this part 1051. For example, this would apply to a marine propulsion engine that is no longer used in a marine vessel.

(4) An engine not covered by paragraphs (1) through (3) of this definition that is intended to be installed in a new vehicle covered by this part 1051. The engine is no longer new when the ultimate purchaser receives a title for the vehicle or it is placed into service, whichever comes first. This generally includes installation of used engines in new recreational vehicles.

(5) An imported vehicle or engine, subject to the following provisions:

(i) An imported recreational vehicle or recreational-vehicle engine covered by a certificate of conformity issued under this part that meets the criteria of one or more of paragraphs (1) through (4) of this definition, where the original manufacturer holds the certificate, is new as defined by those applicable paragraphs.

(ii) An imported recreational vehicle or recreational-vehicle engine covered by a certificate of conformity issued under this part, where someone other than the original manufacturer holds the certificate (such as when the engine is modified after its initial assembly), becomes new when it is imported. It is no longer new when the ultimate purchaser receives a title for the vehicle or engine or it is placed into service, whichever comes first.

(iii) An imported recreational vehicle or recreational-vehicle engine that is not covered by a certificate of conformity issued under this part at the time of importation is new, but only if it was produced on or after the 2007 model year. This addresses uncertified engines and equipment initially placed into service that someone seeks to import into the United States. Importation of this kind of new nonroad engine (or equipment containing such an engine) is generally prohibited by 40 CFR part 1068.

Noncompliant means relating to a vehicle that was originally covered by a certificate of conformity, but is not in the certified configuration or otherwise

does not comply with the conditions of the certificate.

Nonconforming means relating to vehicle not covered by a certificate of conformity that would otherwise be subject to emission standards.

Nonmethane hydrocarbon means the difference between the emitted mass of total hydrocarbons and the emitted mass of methane.

Nonroad means relating to nonroad engines or equipment that includes nonroad engines.

Nonroad engine has the meaning given in 40 CFR 1068.30. In general this means all internal-combustion engines except motor-vehicle engines, stationary engines, engines used solely for competition, or engines used in aircraft.

Off-highway motorcycle means a two-wheeled vehicle with a nonroad engine and a seat (excluding marine vessels and aircraft). (Note: highway motorcycles are regulated under 40 CFR part 86.)

Official emission result means the measured emission rate for an emission-data vehicle on a given duty cycle before the application of any deterioration factor, but after the applicability of regeneration adjustment factors.

Offroad utility vehicle means a nonroad vehicle that has four or more wheels, seating for two or more persons, is designed for operation over rough terrain, and has either a rear payload of 350 pounds or more or seating for six or more passengers. Vehicles intended primarily for recreational purposes that are not capable of transporting six passengers (such as dune buggies) are not offroad utility vehicles. (Note: § 1051.1(a) specifies that some offroad utility vehicles are required to meet the requirements that apply for all-terrain vehicles.)

Owners manual means a document or collection of documents prepared by the engine manufacturer for the owner or operator to describe appropriate engine maintenance, applicable warranties, and any other information related to operating or keeping the engine. The owners manual is typically provided to the ultimate purchaser at the time of sale.

Oxides of nitrogen has the meaning given in 40 CFR 1065.1001.

Phase 1 means relating to Phase 1 standards of §§ 1051.103, 1051.105, or 1051.107, or other Phase 1 standards specified in subpart B of this part.

Phase 2 means relating to Phase 2 standards of § 1051.103, or other Phase 2 standards specified in subpart B of this part.

Phase 3 means relating to Phase 3 standards of § 1051.103, or other Phase

3 standards specified in subpart B of this part.

Placed into service means put into initial use for its intended purpose.

Point of first retail sale means the location at which the initial retail sale occurs. This generally means an equipment dealership, but may also include an engine seller or distributor in cases where loose engines are sold to the general public for uses such as replacement engines.

Recreational means, for purposes of this part, relating to snowmobiles, all-terrain vehicles, off-highway motorcycles, and other vehicles that we regulate under this part. Note that 40 CFR part 90 applies to engines used in other recreational vehicles.

Revoke has the meaning given in 40 CFR 1068.30.

Round has the meaning given in 40 CFR 1065.1001, unless otherwise specified.

Scheduled maintenance means adjusting, repairing, removing, disassembling, cleaning, or replacing components or systems periodically to keep a part or system from failing, malfunctioning, or wearing prematurely. It also may mean actions you expect are necessary to correct an overt indication of failure or malfunction for which periodic maintenance is not appropriate.

Small-volume manufacturer means one of the following:

(1) For motorcycles and ATVs, a manufacturer that sold motorcycles or ATVs before 2003 and had annual U.S.-directed production of no more than 5,000 off-road motorcycles and ATVs (combined number) in 2002 and all earlier calendar years. For manufacturers owned by a parent company, the limit applies to the production of the parent company and all of its subsidiaries.

(2) For snowmobiles, a manufacturer that sold snowmobiles before 2003 and had annual U.S.-directed production of no more than 300 snowmobiles in 2002 and all earlier model years. For manufacturers owned by a parent company, the limit applies to the production of the parent company and all of its subsidiaries.

(3) A manufacturer that we designate to be a small-volume manufacturer under § 1051.635.

Snowmobile means a vehicle designed to operate outdoors only over snow-covered ground, with a maximum width of 1.5 meters or less.

Spark-ignition means relating to a gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to

the theoretical Otto combustion cycle. Spark-ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

Suspend has the meaning given in 40 CFR 1068.30.

Test sample means the collection of engines selected from the population of an engine family for emission testing. This may include testing for certification, production-line testing, or in-use testing.

Test vehicle or engine means an engine in a test sample.

Total hydrocarbon 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 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 means, with respect to any new nonroad equipment or new nonroad engine, the first person who in good faith purchases such new nonroad equipment or new nonroad engine for purposes other than resale.

Ultraviolet light means electromagnetic radiation with a wavelength between 300 and 400 nanometers.

United States has the meaning given in 40 CFR 1068.30.

Upcoming model year means for an engine family the model year after the one currently in production.

U.S.-directed production volume means the number of vehicle units, subject to the requirements of this part, produced by a manufacturer for which the manufacturer has a reasonable assurance that sale was or will be made to ultimate purchasers in the United States. This includes vehicles for which the location of first retail sale is in a state that has applicable state emission regulations for that model year, unless we specify otherwise.

Useful life means the period during which a vehicle is required to comply with all applicable emission standards, specified as a given number of calendar years and kilometers (whichever comes first). In some cases, useful life is also limited by a given number of hours of engine operation. If an engine has no odometer (or hour meter), the specified number of kilometers (or hours) does not limit the period during which an in-use vehicle is required to comply with

emission standards, unless the degree of service accumulation can be verified separately. The useful life for an engine family must be at least as long as both of the following:

(1) The expected average service life before the vehicle is remanufactured or retired from service.

(2) The minimum useful life value.

Void has the meaning given in 40 CFR 1068.30.

We (us, our) means the Administrator of the Environmental Protection Agency and any authorized representatives.

Wide-open throttle means maximum throttle opening. Unless this is specified at a given speed, it refers to maximum throttle opening at maximum speed. For electronically controlled or other engines with multiple possible fueling rates, wide-open throttle also means the maximum fueling rate at maximum throttle opening under test conditions.

■ 325. Section 1051.805 is amended by adding “CFR”, “HC”, and “NARA” to the table in alphabetical order to read as follows:

§ 1051.805 What symbols, acronyms, and abbreviations does this part use?

The following symbols, acronyms, and abbreviations apply to this part:

*	*	*	*	*
CFR—Code of Federal Regulations.				
*	*	*	*	*
HC—hydrocarbon.				
*	*	*	*	*
NARA—National Archives and Records Administration.				
*	*	*	*	*

■ 326. Section 1051.810 is revised to read as follows:

§ 1051.810 What materials does this part reference?

Documents listed in this section have been incorporated by reference into this part. The Director of the Federal Register approved the incorporation by reference as prescribed in 5 U.S.C. 552(a) and 1 CFR part 51. Anyone may inspect copies at the U.S. EPA, Air and Radiation Docket and Information Center, 1301 Constitution Ave., NW., Room B102, EPA West Building, Washington, DC 20460 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(a) *ASTM material*. Table 1 of this section lists material from the American Society for Testing and Materials that we have incorporated by reference. The

first column lists the number and name of the material. The second column lists the sections of this part where we

reference it. Anyone may purchase copies of these materials from the American Society for Testing and

Materials, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428 or www.astm.com. Table 1 follows:

TABLE 1 OF § 1051.810.—ASTM MATERIALS

Document number and name	Part 1051 reference
ASTM D471–98, Standard Test Method for Rubber Property—Effect of Liquids	1051.501
ASTM D814–95 (reapproved 2000), Standard Test Method for Rubber Property Vapor Transmission of Volatile Liquids	1051.245

(b) *SAE material*. Table 2 of this section lists material from the Society of Automotive Engineering that we have incorporated by reference. The first

column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may purchase

copies of these materials from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096 or www.sae.org. Table 2 follows:

TABLE 2 OF § 1051.810.—SAE MATERIALS

Document number and name	Part 1051 reference
SAE J30, Fuel and Oil Hoses, June 1998	1051.245, 1051.501
SAE J1930, Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms, May 1998	1051.135
SAE J2260, Nonmetallic Fuel System Tubing with One or More Layers, November 1996	1051.245

■ 327. Section 1051.815 is revised to read as follows:

§ 1051.815 What provisions apply to confidential information?

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

(b) We will store your confidential information as described in 40 CFR part 2. Also, we will disclose it only as specified in 40 CFR part 2. This applies both to any information you send us and to any information we collect from inspections, audits, or other site visits.

(c) If you send us a second copy without the confidential information, we will assume it contains nothing confidential whenever we need to release information from it.

(d) If you send us information without claiming it is confidential, we may make it available to the public without further notice to you, as described in 40 CFR 2.204.

■ 328. Section 1051.820 is revised to read as follows:

§ 1051.820 How do I request a hearing?

(a) You may request a hearing under certain circumstances, as described elsewhere in this part. To do this, you must file a written request, including a description of your objection and any supporting data, within 30 days after we make a decision.

(b) For a hearing you request under the provisions of this part, we will approve your request if we find that your request raises a substantial factual issue.

(c) If we agree to hold a hearing, we will use the procedures specified in 40 CFR part 1068, subpart G.

PART 1068—GENERAL COMPLIANCE PROVISIONS FOR NONROAD PROGRAMS

■ 329. The authority citation for part 1068 is revised to read as follows:

Authority: 42 U.S.C. 7401–7671q.

■ 330. Section 1068.10 is revised to read as follows:

§ 1068.10 What provisions apply to confidential information?

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

(b) We will store your confidential information as described in 40 CFR part 2. Also, we will disclose it only as specified in 40 CFR part 2. This applies both to any information you send us and to any information we collect from inspections, audits, or other site visits.

(c) If you send us a second copy without the confidential information, we will assume it contains nothing confidential whenever we need to release information from it.

(d) If you send us information without claiming it is confidential, we may make it available to the public without further notice to you, as described in 40 CFR 2.204.

■ 331. Section 1068.30 is amended by revising the definition for “United States” and adding definitions for “Days”, “Defeat device”, “Equipment”, “Exempted”, “Good engineering

judgment”, “Motor vehicle”, “Revoke”, “Suspend”, and “Void” in alphabetical order to read as follows:

§ 1068.30 What definitions apply to this part?

* * * * *

Days means calendar days, including weekends and holidays.

Defeat device means the meaning given in the standard-setting part.

* * * * *

Equipment means any vehicle, vessel, or other type of equipment that is subject to the requirements of this part, or that uses an engine that is subject to the requirements of this part.

* * * * *

Exempted means relating to an engine that is not required to meet otherwise applicable standards. Exempted engines must conform to regulatory conditions specified for an exemption in this part 1068 or in the standard-setting part. Exempted engines are deemed to be “subject to” the standards of the standard-setting part, even though they are not required to comply with the otherwise applicable requirements. Engines exempted with respect to a certain tier of standards may be required to comply with an earlier tier of standards as a condition of the exemption; for example, engines exempted with respect to Tier 3 standards may be required to comply with Tier 1 or Tier 2 standards.

Good engineering judgment means judgments made consistent with generally accepted scientific and engineering principles and all available relevant information. See 40 CFR 1068.5

for the administrative process we use to evaluate good engineering judgment.

* * * * *

Motor vehicle has the meaning given in 40 CFR 85.1703(a).

* * * * *

Revoke means to terminate the certificate or an exemption for an engine family. If we revoke a certificate or exemption, you must apply for a new certificate or exemption before continuing to introduce the affected engines into commerce. This does not apply to engines you no longer possess.

* * * * *

Suspend means to temporarily discontinue the certificate or an exemption for an engine family. If we suspend a certificate, you may not introduce into commerce engines from that engine family unless we reinstate the certificate or approve a new one. If we suspend an exemption, you may not introduce into commerce engines that were previously covered by the exemption unless we reinstate the exemption.

* * * * *

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, and the U.S. Virgin Islands.

Void means to invalidate a certificate or an exemption ab initio. If we void a certificate, all the engines introduced into commerce under that engine family for that model year are considered noncompliant, and you are liable for each engine introduced into commerce under the certificate and may face civil or criminal penalties or both. This applies equally to all engines in the engine family, including engines introduced into commerce before we voided the certificate. If we void an exemption, all the engines introduced into commerce under that exemption are considered uncertified (or nonconforming), and you are liable for each engine introduced into commerce under the exemption and may face civil or criminal penalties or both. You may not introduce into commerce any additional engines using the voided exemption.

* * * * *

■ 332. Section 1068.101 is amended by revising the introductory text and paragraphs (a) and (b) to read as follows:

§ 1068.101 What general actions does this regulation prohibit?

This section specifies actions that are prohibited and the maximum civil penalties that we can assess for each violation. The maximum penalty values

listed in paragraphs (a) and (b) of this section are shown for calendar year 2004. As described in paragraph (e) of this section, maximum penalty limits for later years are set forth in 40 CFR part 19.

(a) The following prohibitions and requirements apply to manufacturers of new engines and manufacturers of equipment containing these engines, except as described in subparts C and D of this part:

(1) *Introduction into commerce.* You may not sell, offer for sale, or introduce or deliver into commerce in the United States or import into the United States any new engine or equipment after emission standards take effect for that engine or equipment, unless it has a valid certificate of conformity for its model year and the required label or tag. You also may not take any of the actions listed in the previous sentence with respect to any equipment containing an engine subject to this part's provisions, unless the engine has a valid and appropriate certificate of conformity and the required engine label or tag. For purposes of this paragraph (a)(1), an appropriate certificate of conformity is one that applies for the same model year as the model year of the equipment (except as allowed by § 1068.105(a)), covers the appropriate category of engines (such as locomotive or CI marine), and conforms to all requirements specified for equipment in the standard-setting part. The requirements of this paragraph (a)(1) also cover new engines you produce to replace an older engine in a piece of equipment, unless the engine qualifies for the replacement-engine exemption in § 1068.240. We may assess a civil penalty up to \$32,500 for each engine in violation.

(2) *Reporting and recordkeeping.* This chapter requires you to record certain types of information to show that you meet our standards. You must comply with these requirements to make and maintain required records (including those described in § 1068.501). You may not deny us access to your records or the ability to copy your records if we have the authority to see or copy them. Also, you must give us the required reports or information without delay. Failure to comply with the requirements of this paragraph is prohibited. We may assess a civil penalty up to \$32,500 for each day you are in violation.

(3) *Testing and access to facilities.* You may not keep us from entering your facility to test engines or inspect if we are authorized to do so. Also, you must perform the tests we require (or have the tests done for you). Failure to perform this testing is prohibited. We may assess

a civil penalty up to \$32,500 for each day you are in violation.

(b) The following prohibitions apply to everyone with respect to the engines to which this part applies:

(1) *Tampering.* You may not remove or disable a device or element of design that may affect an engine's emission levels. This restriction applies before and after the engine is placed in service. Section 1068.120 describes how this applies to rebuilding engines. For a manufacturer or dealer, we may assess a civil penalty up to \$32,500 for each engine in violation. For anyone else, we may assess a civil penalty up to \$2,750 for each engine in violation. This prohibition does not apply in any of the following situations:

(i) You need to repair an engine and you restore it to proper functioning when the repair is complete.

(ii) You need to modify an engine to respond to a temporary emergency and you restore it to proper functioning as soon as possible.

(iii) You modify a new engine that another manufacturer has already certified to meet emission standards and recertify it under your own engine family. In this case you must tell the original manufacturer not to include the modified engines in the original engine family.

(2) *Defeat devices.* You may not knowingly manufacture, sell, offer to sell, or install, an engine part that bypasses, impairs, defeats, or disables the engine's control the emissions of any pollutant. We may assess a civil penalty up to \$2,750 for each part in violation.

(3) *Stationary engines.* For an engine that is excluded from any requirements of this chapter because it is a stationary engine, you may not move it or install it in any mobile equipment, except as allowed by the provisions of this chapter. You may not circumvent or attempt to circumvent the residence-time requirements of paragraph (2)(iii) of the nonroad engine definition in § 1068.30. We may assess a civil penalty up to \$32,500 for each day you are in violation.

(4) *Competition engines.* For an uncertified engine or piece of equipment that is excluded or exempted from any requirements of this chapter because it is to be used solely for competition, you may not use it in a manner that is inconsistent with use solely for competition. We may assess a civil penalty up to \$32,500 for each day you are in violation.

(5) *Importation.* You may not import an uncertified engine or piece of equipment if it is defined to be new in the standard-setting part and it is built

after emission standards start to apply in the United States. We may assess a civil penalty up to \$32,500 for each day you are in violation. Note the following:

(i) The definition of new is broad for imported engines; uncertified engines and equipment (including used engines and equipment) are generally considered to be new when imported.

(ii) Engines that were originally manufactured before applicable EPA standards were in effect are generally not subject to emission standards.

(6) *Warranty.* You must meet your obligation to honor your emission-related warranty under § 1068.115 and to fulfill any applicable responsibilities to recall engines under § 1068.505. Failure to meet these obligations is prohibited. We may assess a civil penalty up to \$32,500 for each engine in violation.

* * * * *

■ 333. Section 1068.105 is amended by revising paragraph (a) and renumbering the second paragraph (c)(1)(iii) as (c)(1)(iv) to read as follows:

§ 1068.105 What other provisions apply to me specifically if I manufacture equipment needing certified engines?

* * * * *

(a) *Transitioning to new engine-based standards.* If new emission standards apply in a given model year, your equipment in that model year must have engines that are certified to the new standards, except that you may use up your normal inventory of earlier engines that were built before the date of the new or changed standards. For example, if your normal inventory practice is to keep on hand a one-month supply of engines based on your upcoming production schedules, and a new tier of standard starts to apply for the 2015 model year, you may order engines based on your normal inventory requirements late in the engine manufacturer's 2014 model year and install those engines in your equipment, regardless of the date of installation. Also, if your model year starts before the end of the calendar year preceding new standards, you may use engines from the previous model year for those units you produce before January 1 of the year that new standards apply. If emission standards do not change in a given model year, you may continue to install engines from the previous model year without restriction. You may not circumvent the provisions of § 1068.101(a)(1) by stockpiling engines that were built before new or changed standards take effect. Note that this allowance does not apply for equipment subject to equipment-based standards.

* * * * *

■ 334. Section 1068.110 is amended by revising paragraph (e) to read as follows:

§ 1068.110 What other provisions apply to engines in service?

* * * * *

(e) *Warranty and maintenance.* Owners are responsible for properly maintaining their engines; however, owners may make warranty claims against the manufacturer for all expenses related to diagnosing and repairing or replacing emission-related parts, as described in § 1068.115. The warranty period begins when the engine is first placed into service. See the standard-setting part for specific requirements. It is a violation of the Act for anyone to disable emission controls; see § 1068.101(b)(1) and the standard-setting part.

■ 335. Section 1068.115 is amended by revising paragraph (a) to read as follows:

§ 1068.115 When must manufacturers honor emission-related warranty claims?

* * * * *

(a) As a certifying manufacturer, you may deny warranty claims only for failures that have been caused by the owner's or operator's improper maintenance or use, by accidents for which you have no responsibility, or by acts of God. For example, you would not need to honor warranty claims for failures that have been directly caused by the operator's abuse of an engine or the operator's use of the engine in a manner for which it was not designed, and are not attributable to you in any way.

* * * * *

■ 336. Section 1068.125 is amended by revising paragraph (b) introductory text to read as follows:

§ 1068.125 What happens if I violate the regulations?

* * * * *

(b) *Administrative penalties.* Instead of bringing a civil action, we may assess administrative penalties if the total is less than \$270,000 against you individually. This maximum penalty may be greater if the Administrator and the Attorney General jointly determine that is appropriate for administrative penalty assessment, or if the limit is adjusted under 40 CFR part 19. No court may review such a determination. Before we assess an administrative penalty, you may ask for a hearing (subject to 40 CFR part 22). The Administrator may compromise or remit, with or without conditions, any administrative penalty that may be imposed under this section.

* * * * *

■ 337. Section 1068.201 is amended by revising paragraphs (c) and (i) to read as follows:

§ 1068.201 Does EPA exempt or exclude any engines from the prohibited acts?

* * * * *

(c) If you use an exemption under this subpart, we may require you to add a permanent label to your exempted engines. You may ask us to modify these labeling requirements if it is appropriate for your engine.

* * * * *

(i) If you want to take an action with respect to an exempted or excluded engine that is prohibited by the exemption or exclusion, such as selling it, you need to certify the engine. We will issue a certificate of conformity if you send us an application for certification showing that you meet all the applicable requirements from the standard-setting part and pay the appropriate fee. Also, in some cases, we may allow manufacturers to modify the engine as needed to make it identical to engines already covered by a certificate. We would base such an approval on our review of any appropriate documentation. These engines must have emission control information labels that accurately describe their status.

■ 338. Section 1068.240 is amended by revising paragraph (d) to read as follows:

§ 1068.240 What are the provisions for exempting new replacement engines?

* * * * *

(d) If the engine being replaced was certified to emission standards less stringent than those in effect when you produce the replacement engine, add a permanent label with your corporate name and trademark and the following language:

THIS ENGINE COMPLIES WITH U.S. EPA NONROAD EMISSION REQUIREMENTS FOR [Insert appropriate year reflecting when the applicable tier of emission standards for the replaced engine began to apply] ENGINES UNDER 40 CFR 1068.240. SELLING OR INSTALLING THIS ENGINE FOR ANY PURPOSE OTHER THAN TO REPLACE A NONROAD ENGINE BUILT BEFORE JANUARY 1, [Insert appropriate year reflecting when the next tier of emission standards began to apply] MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

* * * * *

■ 339. Section 1068.245 is amended by revising paragraphs (a)(4) and (f)(4) to read as follows:

§ 1068.245 What temporary provisions address hardship due to unusual circumstances?

(a) * * *

(4) No other allowances are available under the regulations in this chapter to avoid the impending violation, including the provisions of § 1068.250.

(f) * * *

(4) One of the following statements:

(i) If the engine does not meet any emission standards: "THIS ENGINE IS EXEMPT UNDER 40 CFR 1068.245 FROM EMISSION STANDARDS AND RELATED REQUIREMENTS."

(ii) If the engine meets alternate emission standards as a condition of an exemption under this section, we may specify a different statement to identify the alternate emission standards.

■ 340. Section 1068.250 is amended by revising paragraph (k)(4) to read as follows:

§ 1068.250 What are the provisions for extending compliance deadlines for small-volume manufacturers under hardship?

(k) * * *

(4) One of the following statements:

(i) If the engine does not meet any emission standards: "THIS ENGINE IS EXEMPT UNDER 40 CFR 1068.250 FROM EMISSION STANDARDS AND RELATED REQUIREMENTS."

(ii) If the engine meets alternate emission standards as a condition of an exemption under this section, we may specify a different statement to identify the alternate emission standards.

■ 341. Section 1068.255 is amended by revising paragraphs (a) introductory text and (b)(4) to read as follows:

§ 1068.255 What are the provisions for exempting engines for hardship for equipment manufacturers and secondary engine manufacturers?

(a) *Equipment exemption.* As an equipment manufacturer, you may ask for approval to produce exempted equipment for up to 12 months. We will generally limit this to the first year that new or revised emission standards apply. Send the Designated Officer a written request for an exemption before you are in violation. In your request, you must show you are not at fault for the impending violation and that you would face serious economic hardship if we do not grant the exemption. This exemption is not available under this paragraph (a) if you manufacture the engine you need for your own equipment or if complying engines are available from other engine manufacturers that could be used in

your equipment, unless we allow it elsewhere in this chapter. We may impose other conditions, including provisions to use an engine meeting less stringent emission standards or to recover the lost environmental benefit. In determining whether to grant the exemptions, we will consider all relevant factors, including the following:

(b) * * *

(4) One of the following statements:

(i) If the engine does not meet any emission standards: "THIS ENGINE IS EXEMPT UNDER 40 CFR 1068.255 FROM EMISSION STANDARDS AND RELATED REQUIREMENTS."

(ii) If the engine meets alternate emission standards as a condition of an exemption under this section, we may specify a different statement to identify the alternate emission standards.

■ 342. Section 1068.260 is amended by revising paragraphs (a)(5), (a)(6), and (f) and adding paragraphs (g) and (h) to read as follows:

§ 1068.260 What are the provisions for temporarily exempting engines for delegated final assembly?

(a) * * *

(5) Ship the aftertreatment components directly to the equipment manufacturer, or arrange for separate shipment by the component manufacturer to the equipment manufacturer.

(6) Take appropriate additional steps to ensure that all engines will be in their certified configuration when installed by the equipment manufacturer. At a minimum do the following:

(i) Obtain annual affidavits from every equipment manufacturer to whom you sell engines under this section. Include engines that you sell through distributors or dealers. The affidavits must list the part numbers of the aftertreatment devices that equipment manufacturers install on each engine they purchase from you under this section.

(ii) If you sell more than 50 engines per model year under this section, you must annually audit four equipment manufacturers to whom you sell engines under this section. To select individual equipment manufacturers, divide all the affected equipment manufacturers into quartiles based on the number of engines they buy from you; select a single equipment manufacturer from each quartile each model year. Vary the equipment manufacturers you audit from year to year, though you may repeat an audit in a later model year if you find or suspect that a particular

equipment manufacturer is not properly installing aftertreatment devices. If you sell engines to fewer than 16 equipment manufacturers under the provisions of this section, you may instead set up a plan to audit each equipment manufacturer on average once every four model years. Audits must involve the assembling companies' facilities, procedures, and production records to monitor their compliance with your instructions, must include investigation of some assembled engines, and must confirm that the number of aftertreatment devices shipped were sufficient for the number of engines produced. Where an equipment manufacturer is not located in the United States, you may conduct the audit at a distribution or port facility in the United States. You must keep records of these audits for five years after the end of the model year and provide a report to us describing any uninstalled or improperly installed aftertreatment components. Send us these reports within 90 days of the audit, except as specified in paragraph (d) of this section.

(iii) If you sell up to 50 engines per model year under this section, you must conduct audits as described in paragraph (a)(6)(ii) of this section or propose an alternative plan for ensuring that equipment manufacturers properly install aftertreatment devices.

(iv) If you produce engines and use them to produce equipment under the provisions of this section, you must take steps to ensure that your facilities, procedures, and production records are set up to ensure compliance with the provisions of this section, but you may meet your auditing responsibilities under this paragraph (a)(6) by maintaining a database showing how you pair aftertreatment components with the appropriate engines.

(f) You are liable for the in-use compliance of any engine that is exempt under this section.

(g) It is a violation of the Act for any person to complete assembly of the exempted engine without complying fully with the installation instructions.

(h) You may ask us to provide a temporary exemption to allow you to complete production of your engines at different facilities, as long as you maintain control of the engines until they are in their certified configuration. We may require you to take specific steps to ensure that such engines are in their certified configuration before reaching the ultimate purchaser. You may request an exemption under this paragraph (h) in your application for

certification, or in a separate submission to the Designated Compliance Officer.

■ 343. A new § 1068.265 is added to subpart C to read as follows:

§ 1068.265 What provisions apply to engines that are conditionally exempted from certification?

Engines produced under an exemption for replacement engines (§ 1068.240) or for hardship (§ 1068.245, § 1068.250, or § 1068.255) may need to meet alternate emission standards as a condition of the exemption. The standard-setting part may similarly exempt engines from all certification requirements, or allow us to exempt engines from all certification requirements for certain cases, but require the engines to meet alternate standards. In these cases, all the following provisions apply:

(a) Your engines must meet the alternate standards we specify in (or pursuant to) the exemption section, and all other requirements applicable to engines that are subject to such standards.

(b) You need not apply for and receive a certificate for the exempt engines. However, you must comply with all the requirements and obligations that would apply to the engines if you had received a certificate of conformity for them, unless we specifically waive certain requirements.

(c) You must have emission data from test engines using the appropriate procedures that demonstrate compliance with the alternate standards, unless the engines are identical in all material respects to engines that you have previously certified to standards that are the same as, or more stringent than, the alternate standards.

(d) Unless we specify otherwise elsewhere in the standard-setting part, you must meet the labeling requirements in the standard-setting part, with the following exceptions:

(1) Modify the engine-family designation by eliminating the character that identifies the model year.

(2) See the provisions of the applicable exemption for appropriate language to replace the compliance statement otherwise required in the standard-setting part.

(e) You may not generate emission credits for averaging, banking, or trading with engines meeting requirements under the provisions of this section.

(f) Keep records to show that you meet the alternate standards, as follows:

(1) If your exempted engines are identical to previously certified engines, keep your most recent application for certification for the certified engine family.

(2) If you previously certified a similar engine family, but have modified the exempted engine in a way that changes it from its previously certified configuration, keep your most recent application for certification for the certified engine family, a description of the relevant changes, and any test data or engineering evaluations that support your conclusions.

(3) If you have not previously certified a similar engine family, keep all the records we specify for the application for certification and any additional records the standard-setting part requires you to keep.

(g) We may require you to send us an annual report of the engines you produce under this section.

■ 344. Section 1068.305 is amended by revising paragraph (a) to read as follows:

§ 1068.305 How do I get an exemption or exclusion for imported engines?

(a) Complete the appropriate EPA declaration form before importing any nonconforming engine. These forms are available on the Internet at <http://www.epa.gov/OTAQ/imports/> or by phone at 734-214-4100.

* * * * *

■ 345. Section 1068.315 is amended by revising paragraphs (e), (f), and (g), adding and reserving paragraph (h), and adding paragraphs (i), and (j) to read as follows:

§ 1068.315 What are the permanent exemptions for imported engines?

* * * * *

(e) *Small-volume manufacturer exemption.* You may import a nonconforming engine if we grant hardship relief for a small-volume manufacturer, as described in § 1068.250.

(f) *Equipment-manufacturer hardship exemption.* You may import a nonconforming engine if we grant an exemption for the transition to new or revised emission standards, as described in § 1068.255.

(g) *Delegated-assembly exemption.* You may import a nonconforming engine for final assembly under the provisions of § 1068.260. However, this does not include the staged-assembly provisions of § 1068.260(h); see § 1068.330 for importing incomplete engines.

(h) [Reserved]

(i) *Identical configuration exemption.* You may import a nonconforming engine if it is identical to certified engines produced by the same manufacturer, subject to the following provisions:

(1) You may import only the following engines under this exemption:

(i) Large nonroad spark-ignition engines (see part 1048 of this chapter).

(ii) Recreational nonroad spark-ignition engines and equipment (see part 1051 of this chapter).

(iii) Land-based nonroad diesel engines (see part 1039 of this chapter).

(2) You must meet all the following criteria:

(i) You have owned the engine for at least six months.

(ii) You agree not to sell, lease, donate, trade, or otherwise transfer ownership of the engine for at least five years, or until the engine is eligible for the exemption in paragraph (g) of this section. During this period, the only acceptable way to dispose of the engine is to destroy or export it.

(iii) You use data or evidence sufficient to show that the engine is in a configuration that is identical to an engine the original manufacturer has certified to meet emission standards that apply at the time the manufacturer finished assembling or modifying the engine in question. If you modify the engine to make it identical, you must completely follow the original manufacturer's written instructions.

(3) We will tell you in writing if we find the information insufficient to show that the engine is eligible for this exemption. In this case, we will not consider your request further until you address our concerns.

(j) *Ancient engine exemption.* If you are not the original engine manufacturer, you may import a nonconforming engine that is subject to a standard-setting part and was first manufactured at least 21 years earlier, as long as it is still in its original configuration.

■ 346. Section 1068.325 is amended by revising the introductory text to read as follows:

§ 1068.325 What are the temporary exemptions for imported engines?

You may import engines under certain temporary exemptions, subject to the conditions in this section. We may ask the U.S. Customs Service to require a specific bond amount to make sure you comply with the requirements of this subpart. You may not sell or lease one of these engines while it is in the United States. You must eventually export the engine as we describe in this section unless you get a certificate of conformity for it or it qualifies for one of the permanent exemptions in § 1068.315. Section 1068.330 specifies an additional temporary exemption allowing you to import certain engines you intend to modify.

* * * * *

■ 347. Section 1068.330 is amended by revising the section heading and paragraph (c) and adding paragraph (a)(4) to read as follows:

§ 1068.330 How do I import engines requiring further assembly?

* * * * *

(a) * * *

(4) You import a complete or partially complete engine for installation in equipment subject to equipment-based standards for which you have either a certificate of conformity or an exemption that allows you to sell the equipment.

* * * * *

(c) If we approve a temporary exemption for an engine, you may import it under the conditions in this section. If you are not a certificate holder, we may ask the U.S. Customs Service to require a specific bond amount to make sure you comply with the requirements of this subpart.

* * * * *

■ 348. Section 1068.335 is amended by revising paragraph (b) to read as follows:

§ 1068.335 What are the penalties for violations?

* * * * *

(b) *Temporarily imported engines.* If you do not comply with the provisions of this subpart for a temporary exemption under § 1068.325 or § 1068.330, you may forfeit the total amount of the bond in addition to the sanctions we identify in paragraph (a) of this section. We will consider an engine to be exported if it has been destroyed or delivered to the U.S. Customs Service for export or other disposition under applicable Customs laws and regulations. EPA or the U.S. Customs Service may offer you a grace period to allow you to export a temporarily exempted engine without penalty after the exemption expires.

■ 349. Section 1068.410 is amended by adding paragraph (j) to read as follows:

§ 1068.410 How must I select and prepare my engines?

* * * * *

(j) *Retesting after reaching a fail decision.* You may retest your engines once a fail decision for the audit has been reached based on the first test on each engine under § 1068.420(c). You may test each engine up to a total of three times, but you must perform the same number of tests on each engine. You may further operate the engine to stabilize emission levels before testing, subject to the provisions of paragraph (f) of this section. We may approve retesting at other times if you send us a request with satisfactory justification.

■ 350. Section 1068.505 is amended by adding paragraph (g) to read as follows:

§ 1068.505 How does the recall program work?

* * * * *

(g) For purposes of recall, *owner* means someone who owns an engine affected by a remedial plan or someone who owns a piece of equipment that has one of these engines.

■ 351. Section 1068.510 is amended by revising paragraph (a)(10) to read as follows:

§ 1068.510 How do I prepare and apply my remedial plan?

(a) * * *

(10) If your employees or authorized warranty agents will not be doing the work, state who will and describe their qualifications.

* * * * *

§ 1068.540 [Removed]

■ 352. Section 1068.540 is removed.

■ 353. Part 1065 is revised to read as follows:

PART 1065—ENGINE-TESTING PROCEDURES

Subpart A—Applicability and General Provisions

Sec.

- 1065.1 Applicability.
- 1065.2 Submitting information to EPA under this part.
- 1065.5 Overview of this part 1065 and its relationship to the standard-setting part.
- 1065.10 Other procedures.
- 1065.12 Approval of alternate procedures.
- 1065.15 Overview of procedures for laboratory and field testing.
- 1065.20 Units of measure and overview of calculations.
- 1065.25 Recordkeeping.

Subpart B—Equipment Specifications

- 1065.101 Overview.
- 1065.110 Work inputs and outputs, accessory work, and operator demand.
- 1065.120 Fuel properties and fuel temperature and pressure.
- 1065.122 Engine cooling and lubrication.
- 1065.125 Engine intake air.
- 1065.127 Exhaust gas recirculation.
- 1065.130 Engine exhaust.
- 1065.140 Dilution for gaseous and PM constituents.
- 1065.145 Gaseous and PM probes, transfer lines, and sampling system components.
- 1065.150 Continuous sampling.
- 1065.170 Batch sampling for gaseous and PM constituents.
- 1065.190 PM-stabilization and weighing environments for gravimetric analysis.
- 1065.195 PM-stabilization environment for in-situ analyzers.

Subpart C—Measurement Instruments

- 1065.201 Overview and general provisions.
- 1065.202 Data updating, recording, and control.

1065.205 Performance specifications for measurement instruments.

Measurement of Engine Parameters and Ambient Conditions

- 1065.210 Work input and output sensors.
- 1065.215 Pressure transducers, temperature sensors, and dewpoint sensors.

Flow-Related Measurements

- 1065.220 Fuel flow meter.
- 1065.225 Intake-air flow meter.
- 1065.230 Raw exhaust flow meter.
- 1065.240 Dilution air and diluted exhaust flow meters.
- 1065.245 Sample flow meter for batch sampling.
- 1065.248 Gas divider.

CO and CO₂ Measurements

- 1065.250 Nondispersive infra-red analyzer.

Hydrocarbon Measurements

- 1065.260 Flame ionization detector.
- 1065.265 Nonmethane cutter.
- 1065.267 Gas chromatograph.

NO_x Measurements

- 1065.270 Chemiluminescent detector.
- 1065.272 Nondispersive ultraviolet analyzer.

O₂ Measurements

- 1065.280 Paramagnetic and magnetopneumatic O₂ detection analyzers.

Air-to-Fuel Ratio Measurements

- 1065.284 Zirconia (ZrO₂) analyzer.

PM Measurements

- 1065.290 PM gravimetric balance.
- 1065.295 PM inertial balance for field-testing analysis.

Subpart D—Calibrations and Verifications

- 1065.301 Overview and general provisions.
- 1065.303 Summary of required calibration and verifications
- 1065.305 Verifications for accuracy, repeatability, and noise.
- 1065.307 Linearity verification.
- 1065.308 Continuous gas analyzer system-response and updating-recording verification.
- 1065.309 Continuous gas analyzer uniform response verification.

Measurement of Engine Parameters and Ambient Conditions

- 1065.310 Torque calibration.
- 1065.315 Pressure, temperature, and dewpoint calibration.

Flow-Related Measurements

- 1065.320 Fuel-flow calibration.
- 1065.325 Intake-flow calibration.
- 1065.330 Exhaust-flow calibration.
- 1065.340 Diluted exhaust flow (CVS) calibration.
- 1065.341 CVS and batch sampler verification (propane check).
- 1065.345 Vacuum-side leak verification.

CO and CO₂ Measurements

- 1065.350 H₂O interference verification for CO₂ NDIR analyzers.
- 1065.355 H₂O and CO₂ interference verification for CO NDIR analyzers.