

Environmental Protection Agency

§ 94.12

specifications), and the model year(s) of the resulting engine configuration must be identified. A reasonable basis would exist if:

(1) Parts installed, whether the parts are new, used, or rebuilt, are such that a person familiar with the design and function of motor vehicle engines would reasonably believe that the parts perform the same function with respect to emission control as the original parts; and

(2) Any parameter adjustment or design element change is made only:

(i) In accordance with the original engine manufacturer's instructions; or

(ii) Where data or other reasonable technical basis exists that such parameter adjustment or design element change, when performed on the engine or similar engines, is not expected to adversely affect in-use emissions.

(c) When an engine is being rebuilt and remains installed or is reinstalled in the same vessel, it must be rebuilt to a configuration of the same or later model year as the original engine. When an engine is being replaced, the replacement engine must be an engine of (or rebuilt to) a certified configuration that is equivalent, from an emissions standpoint, to the engine being replaced.

(d) At time of rebuild, emission-related codes or signals from on-board monitoring systems may not be erased or reset without diagnosing and responding appropriately to the diagnostic codes, regardless of whether the systems are installed to satisfy requirements in § 94.211 or for other reasons and regardless of form or interface. Diagnostic systems must be free of all such codes when the rebuilt engine is returned to service. Such signals may not be rendered inoperative during the rebuilding process.

(e)(1) When conducting a rebuild, all critical emission-related components listed in Appendix I of this part not otherwise addressed by paragraphs (b) through (d) of this section must be checked and cleaned, adjusted, repaired, or replaced as necessary, following manufacturer recommended practices.

(2) During the installation of a rebuilt engine, all critical emission-related components listed in Appendix I

of this part not otherwise addressed by paragraphs (b) through (d) of this section must be checked as necessary, following manufacturer recommended practices.

(f) Records shall be kept by parties conducting activities included in paragraphs (b) through (e) of this section. At minimum the records shall include the hours of operation at the time of rebuild, a listing of work performed on the engine and emission-related control components (including a listing of parts and components used, engine parameter adjustments, emission-related codes or signals responded to and reset), and work performed under paragraph (e) of this section.

(1) Parties may keep records in whatever format or system they choose as long as the records are understandable to an EPA enforcement officer or can be otherwise provided to an EPA enforcement officer in an understandable format when requested.

(2) Parties are not required to keep records of information that is not reasonably available through normal business practices including information on activities not conducted by themselves or information that they cannot reasonably access.

(3) Parties may keep records of their rebuilding practices for an engine family rather than on each individual engine rebuilt in cases where those rebuild practices are followed routinely.

(4) Records must be kept for a minimum of two years after the engine is rebuilt.

(g) For Category 3 engines, the owner and operator shall also comply with the recordkeeping requirements in the Annex VI Technical Code (incorporated by reference at § 94.5) regarding the Engine Book of Record Parameters.

[64 FR 73331, Dec. 29, 1999, as amended at 68 FR 9784, Feb. 28, 2003]

§ 94.12 Interim provisions.

This section contains provisions that apply for a limited number of calendar years or model years. These provisions supercede the other provisions of this part. The provisions of this section do not apply for Category 3 engines.

(a) *Compliance date of standards.* Certain companies may delay compliance with emission standards. Companies

wishing to take advantage of this provision must inform the Designated Officer of their intent to do so in writing before the date that compliance with the standards would otherwise be mandatory.

(1) Post-manufacture marinizers may elect to delay the model year of the Tier 2 standards for commercial engines as specified in § 94.8 by one year for each engine family.

(2) Small-volume manufacturers may elect to delay the model year of the Tier 2 standards for recreational engines as specified in § 94.8 by five years for each engine family.

(b) *Early banking of emission credits.*

(1) A manufacturer may optionally certify engines manufactured before the date the Tier 2 standards take effect to earn emission credits under the averaging, banking, and trading program. Such optionally certified engines are subject to all provisions relating to mandatory certification and enforcement described in this part. Manufacturers may begin earning credits for recreational engines on December 9, 2002.

(2) Consistent with the provisions of Subpart D of this part, NO_x and PM emission credits may be generated from engines prior to the applicable effective compliance date of the applicable standard (i.e., the effective compliance date in § 94.8(a), as applicable), relative to baseline emission rates.

(3)(i) THC+NO_x credits generated under this paragraph (b) shall be calculated as specified in § 92.305, except that the baseline emission rate may be either the applicable standard or a measured THC+NO_x baseline level for the configuration with the lowest NO_x emission rate in the applicable engine family. The additional credits resulting from using a measured baseline (instead of the applicable standard) shall be discounted by 10 percent. This discount does not apply to the portion of the credits resulting from the engine's emissions being below the applicable standard. Baseline emission rates may not exceed the IMO NO_x limits.

(ii) PM credits generated under this paragraph (b) shall be calculated as specified in § 94.305, except that the applicable standard may be replaced by a measured PM baseline emission rate

for the configuration with the lowest NO_x emission rate in the applicable engine family that is approved in advance by the Administrator. The additional credits resulting from using a measured baseline (instead of the applicable standard) shall be discounted by 10 percent. This discount does not apply to the portion of the credits resulting from the engine's emissions being below the applicable standard.

(4)(i) For post-manufacture marinizers, measured baseline emission levels may be based on emissions from a single engine for each engine family.

(ii) For all other manufacturers, measured baseline emission levels must be based on the average of emissions from at least three engines for each engine family.

(iii) The Administrator must approve any measured baselines in advance.

(5) For an engine to be eligible to generate early credits under this paragraph (b), its certified emission levels for all pollutants must be below the Tier 2 standards listed in § 94.8, with the following exception: PMMs may include in this early credit program Category 1 marine engines with certified emissions above the Tier 2 standards listed in § 94.8. Early credits generated by Category 1 marine engines with certified emissions above the Tier 2 standards listed in § 94.8 may not be used for model year 2008 or later engines.

(c) Testing of Category 1 engines subject to the requirements of this part that is conducted by the Administrator shall be performed using test fuels that meet the specifications in § 94.108 and have a sulfur content no higher than 0.20 weight percent, unless the PM emission rates are corrected for the effect of a higher fuel sulfur content.

(d) Post-manufacture marinizers may import an uncertified engine for marinization, in cases where the engine in the final marinized configuration is not subject to the standards of this part because:

(1) The model year of the marinized engine is prior to the first model year for which engines of that size are subject to the standards;

(2) The post-manufacture marinizer is marinizing the engine under paragraph (a) of this section; or

Environmental Protection Agency

§ 94.12

(3) The post-manufacture marinizer is granted hardship relief from the Tier 2 standards under § 94.209(c).

(e) *Compliance date of NTE requirements* (1) Notwithstanding the other provisions of this part, the requirements of § 94.8(e) for commercial marine engines start with 2010 model year engines for postmanufacture marinizers and 2007 model year engines for all other engine manufacturers.

(2) Notwithstanding the other provisions of this part, the requirements of § 94.8(e) for recreational marine engines start with 2012 model year engines for post-manufacture marinizers and 2009 model year engines for all other engine manufacturers.

(f) *Flexibility for small-volume boat builders.* Notwithstanding the other provisions of this part, manufacturers may sell uncertified recreational engines to small-volume boat builders during the first five years for which the emission standards in § 94.8 apply, subject to the following provisions:

(1) The U.S.-directed production volume of boats from any small-volume boat builder using uncertified engines during the total five-year period may not exceed 80 percent of the manufacturer's average annual production for the three years prior to the general applicability of the recreational engine standards in § 94.8, except as allowed in paragraph (f)(2) of this section.

(2) Small-volume boat builders may exceed the production limits in paragraph (f)(1) of this section, provided they do not exceed 20 boats during the five-year period or 10 boats in any single calendar year. This does not apply to boats powered by engines with displacement greater than 2.5 liters per cylinder.

(3) Small-volume boat builders must keep records of all the boats and engines produced under this paragraph (f), including boat and engine model numbers, serial numbers, and dates of manufacture. Records must also include information verifying compliance with the limits in paragraph (f)(1) or (f)(2) of this section. Keep these records until at least two full years after you no longer use the provisions in this paragraph (f).

(4) Manufacturers must add a permanent, legible label, written in block let-

ters in English, to a readily visible part of each engine exempted under this paragraph (f). This label must include at least the following items:

(i) The label heading "EMISSION CONTROL INFORMATION".

(ii) Your corporate name and trademark.

(iii) Engine displacement (in liters), rated power, and model year of the engine or whom to contact for further information.

(iv) The statement "THIS ENGINE IS EXEMPT UNDER 40 CFR 94.12(f) FROM EMISSION STANDARDS AND RELATED REQUIREMENTS.".

(g) *Flexibility for engines over 560kW.* Notwithstanding the other provisions of this part, manufacturers may choose to delay certification of marine engines with less than 2.5 liters per cylinder and rated power above 560 kW, that are derived from a land-based nonroad engine with a rated power greater than 560 kW, if they do all of the following:

(1) Certify all of their applicable marine engines with less than 2.5 liters per cylinder and rated power above 560 kW to a NO_x standard of 6.4 g/kW-hr for model years 2008 through 2012.

(2) Notify EPA in writing before 2004 of their intent to use this provision. This notification must include a signed statement certifying that the manufacturer will comply with all the provisions of this paragraph (g).

(3) Add a permanent, legible label, written in block letters in English, to a readily visible part of each engine exempted under this paragraph (f). This label must include at least the following items:

(i) The label heading "EMISSION CONTROL INFORMATION".

(ii) Your corporate name and trademark.

(iii) Engine displacement (in liters), rated power, and model year of the engine or whom to contact for further information.

(iv) The statement "THIS ENGINE IS EXEMPT UNDER 40 CFR 94.12(g) FROM EMISSION STANDARDS AND RELATED REQUIREMENTS.".

[64 FR 73331, Dec. 29, 1999, as amended at 67 FR 68343, Nov. 8, 2002; 68 FR 9784, Feb. 28, 2003]

§ 94.101

EDITORIAL NOTE: At 68 FR 9784, Feb. 28, 2003, § 94.12 was amended by adding paragraph (f). The amendment could not be incorporated because paragraph (f) already exists in the section. For the convenience of the user, the added text is set forth as follows:

§ 94.12 Interim provisions.

* * * * *

(f) Manufacturers may submit test data collected using the Annex VI test procedures to show compliance with Tier 1 standards for model years before 2007. Note: Starting in 2007, EPA may approve a manufacturer's request to continue using alternate procedures under § 94.102(c), as long as the manufacturer satisfies EPA that the differences in testing will not affect NO_x emission rates.

Subpart B—Test Procedures

§ 94.101 Applicability.

Provisions of this subpart apply for testing performed by the Administrator or a manufacturer.

§ 94.102 General provisions.

(a) The test procedures specified in this part are intended to produce emission measurements that are equivalent to emission measurements that would result from emission tests performed during in-use operation using the same engine configuration installed in a vessel.

(b) Test procedures otherwise allowed by the provisions of this subpart shall not be used where such procedures are not consistent with good engineering practice and the regulatory goal specified in paragraph (a) of this section.

(c) Alternate test procedures may be used if shown to yield equivalent results, and if approved in advance by the Administrator.

§ 94.103 Test procedures for Category 1 marine engines.

(a) Gaseous and particulate emissions shall be measured using the test procedures specified in 40 CFR part 89, ex-

40 CFR Ch. I (7–1–03 Edition)

cept as otherwise specified in this subpart.

(b) The Administrator may specify changes to the provisions of paragraph (a) of this section that are necessary to comply with the general provisions of § 94.102.

§ 94.104 Test procedures for Category 2 marine engines.

(a) Gaseous and particulate emissions shall be measured using the test procedures specified in 40 CFR part 92, except as otherwise specified in this subpart.

(b)(1) The requirements of 40 CFR part 92 related to charge air temperatures, engine speed and load, and engine air inlet restriction pressures do not apply for marine engines.

(2) For marine engine testing, charge air temperatures, engine speed and load, and engine air inlet restriction pressures shall be representative of typical in-use marine engine conditions.

(c) Conduct testing at ambient temperatures from 13 °C to 30 °C.

(d) The Administrator may specify changes to the provisions of paragraph (a) of this section that are necessary to comply with the general provisions of § 94.102.

[64 FR 73331, Dec. 29, 1999, as amended at 67 FR 68343, Nov. 8, 2002]

§ 94.105 Duty cycles.

(a) *Overview.* For the purpose of determining compliance with the emission standards of § 94.8, except for those in § 94.8(e), engines shall be tested using the appropriate duty cycles described in this section.

(b) *General cycle.* Propulsion engines that are used with (or intended to be used with) fixed-pitch propellers, and any other engines for which the other duty cycles of this section do not apply, shall be tested using the duty cycle described in the following Table B-1:

TABLE B-1—GENERAL MARINE DUTY CYCLE

Mode No.	Engine speed ¹ (percent of maximum test speed)	Percent of maximum test power ²	Minimum time in mode (minutes)	Weighting factors
1	100	100	5.0	0.20