

**Environmental Protection Agency**

**§ 91.105**

**Subpart B—Emission Standards and Certification Provisions**

**§ 91.101 Applicability.**

The requirements of this subpart B are applicable to all new marine spark-ignition engines subject to the provisions of subpart A of this part 91.

**§ 91.102 Definitions.**

The definitions in subpart A of this part 91 apply to this subpart. All terms not defined herein or in subpart A of this part have the meaning given them in the Act.

**§ 91.103 Averaging, banking, and trading of exhaust emission credits.**

Regulations regarding averaging, banking, and trading provisions along

with applicable recordkeeping requirements are found in subpart C of this part.

**§ 91.104 Exhaust emission standards for outboard and personal watercraft engines.**

(a) New marine spark-ignition outboard and personal watercraft engines for use in the U.S. must meet the following exhaust emission standards for HC+NO<sub>x</sub>. The exhaust emission standard for each model year is provided below. It is also used as input to the calculation procedure in § 91.207 to determine compliance with the corporate average HC+NO<sub>x</sub> exhaust emission standard.

HYDROCARBON PLUS OXIDES OF NITROGEN EXHAUST EMISSION STANDARDS  
[grams per kilowatt-hour]

Model year	P < 4.3 kW HC+NO <sub>x</sub> emission standard by model year	P > 4.3 kW HC+NO <sub>x</sub> emission standard by model year
1998 .....	278.00	$(0.917 \times (151 + 557/P^{0.9})) + 2.44$
1999 .....	253.00	$(0.833 \times (151 + 557/P^{0.9})) + 2.89$
2000 .....	228.00	$(0.750 \times (151 + 557/P^{0.9})) + 3.33$
2001 .....	204.00	$(0.667 \times (151 + 557/P^{0.9})) + 3.78$
2002 .....	179.00	$(0.583 \times (151 + 557/P^{0.9})) + 4.22$
2003 .....	155.00	$(0.500 \times (151 + 557/P^{0.9})) + 4.67$
2004 .....	130.00	$(0.417 \times (151 + 557/P^{0.9})) + 5.11$
2005 .....	105.00	$(0.333 \times (151 + 557/P^{0.9})) + 5.56$
2006 and later .....	81.00	$(0.250 \times (151 + 557/P^{0.9})) + 6.00$

where:

P = the average power of an engine family in kW (sales weighted). The power of each configuration is the rated output in kilowatts as determined by SAE J1228. This procedure has been incorporated by reference. See § 91.6.

(b) Exhaust emissions are measured using the procedures set forth in subpart E of this part.

(c) Manufacturers must designate a Family Emission Limit (FEL) for HC+NO<sub>x</sub> for every engine family. The FEL may be equal to the emission standard in paragraph (a) of this section. The FEL established through certification serves as the emission standard for the engine family and emissions may not exceed the FEL levels for HC+NO<sub>x</sub> for all engines sold in the engine family, for their useful life.

(d) A manufacturer must comply with a corporate average HC+NO<sub>x</sub>

emission standard as determined in accordance with subpart C § 91.207.

**§ 91.105 Useful life period, recall, and warranty periods.**

(a) The useful life for PWC engines is a period of 350 hours of operation or 5 years of use, whichever first occurs. The useful life for Outboard marine spark-ignition engines is a period of 350 hours of operation or 10 years of use, whichever first occurs.

(b) PWC engines are subject to recall testing for a period of 350 hours of operation or 5 years of use, whichever first occurs. Outboard marine spark-ignition engines are subject to recall testing for a period of 350 hours of operation or 10 years of use, whichever first occurs. However, for purposes of this part only, if the Administrator should issue a nonconformity determination, then only those engines that are within the

## §91.106

## 40 CFR Ch. I (7-1-07 Edition)

useful life as of the date of the nonconformity determination are subject to recall repair requirements.

(c) Warranty periods are set out in subpart M of this part.

### §91.106 Certificate of conformity.

(a) Every manufacturer of a new marine SI engine produced during or after the 1998 model year for outboard engines and the 1999 model year for PWC engines, must obtain a certificate of conformity covering each engine family. The certificate of conformity must be obtained from the Administrator prior to selling, offering for sale, introducing into commerce, or importing into the United States the new marine SI engine.

(b) The certificate of conformity is valid for the model year for which it is designated.

### §91.107 Application for certification.

(a) For each engine family, the engine manufacturer must submit to the Administrator a completed application for a certificate of conformity, except that with respect to an existing technology OB/PWC engine a manufacturer may, in lieu of providing such application, submit to the Administrator summary testing and other information as determined by the Administrator.

(b) The application must be approved and signed by the authorized representative of the manufacturer.

(c) The application must be updated and corrected by amendment as provided in §91.122 to accurately reflect the manufacturer's production.

(d) Required content. Each application must include the following information:

(1) A description of the basic engine design including, but not limited to, the engine family specifications;

(2) An explanation of how the emission control system operates, including a detailed description of all emission control system components (detailed component calibrations are not required to be included, however they must be provided if requested), each auxiliary emission control device (AECD), and all fuel system components to be installed on any production or test engine(s);

(3) Proposed test fleet selection and the rationale for the test fleet selection;

(4) Special or alternative test procedures, if applicable;

(5) The description of the operating cycle and the service accumulation period necessary to break in the test engine(s) and stabilize emission levels and any maintenance scheduled;

(6) A description of all adjustable operating parameters, including the following:

(i) The nominal or recommended setting and the associated production tolerances;

(ii) The intended physically adjustable range;

(iii) The limits or stops used to establish adjustable ranges;

(iv) Production tolerances of the limits or stops used to establish each physically adjustable range; and

(v) Information relating to why the physical limits or stops used to establish the physically adjustable range of each parameter, or any other means used to inhibit adjustment of parameters to settings outside the manufacturer's intended physically adjustable ranges on in-use engines;

(7) Regarding the averaging, banking, and trading provisions, the information specified in §91.208;

(8) The proposed maintenance and use instructions the manufacturer will furnish to the ultimate purchaser of each new engine and the proposed emission control label;

(9) All test data, for HC, CO and NO<sub>x</sub>, obtained by the manufacturer on each test engine;

(10) A statement that the test engine(s), as described in the manufacturer's application for certification, has been tested in accordance with the applicable test procedures, utilizing the fuels and equipment described in the application, and that on the basis of such tests the engine(s) conforms to the requirements of this part; and

(11) An unconditional statement certifying that all engines in the engine family comply with all requirements of this part and the Clean Air Act.