

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_x. 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_x exhaust emission standard.

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

Model year	P < 4.3 kW HC+NO _x emission standard by model year	P > 4.3 kW HC+NO _x 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_x 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_x for all engines sold in the engine family, for their useful life.

(d) A manufacturer must comply with a corporate average HC+NO_x

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