

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:

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

(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:

- (1) Except as allowed by paragraph (c)(2) of this section, your useful life (in kilometers) may not be less than either of the following:
 - (i) Your projected operating life from advertisements or other marketing ma-

terials for any vehicles in the engine family.

(ii) Your basic mechanical warranty for any engines in the engine family.

(2) Your useful life may be based on the average service life of vehicles in the engine family if you show that the average service life is less than the useful life required by paragraph (c)(1) of this section, but more than the minimum useful life (10,000 kilometers or 1,000 hours of engine operation). In determining the actual average service life of vehicles in an engine family, we will consider all available information and analyses. Survey data is allowed but not required to make this showing.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40488, July 13, 2005]

§ 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.

(b) Beginning with the 2008 model year, permeation emissions from your vehicle's fuel lines may not exceed 15 grams per square-meter per day when measured with the test procedures for fuel-line permeation in subpart F of this part. Use the inside diameter of

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the hose to determine the surface area of the hose.

[67 FR 68347, Nov. 8, 2002, as amended at 70 FR 40488, July 13, 2005]

§ 1051.115 What other requirements must my vehicles meet?

Your vehicles must meet the following requirements:

(a) *Closed crankcase.* Crankcase emissions may not be discharged directly into the ambient atmosphere from any vehicle throughout its useful life.

(b) [Reserved]

(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) *Other adjustments.* This provision applies if an experienced mechanic can change your engine's air-fuel ratio in less than one hour with a few parts whose total cost is under \$50 (in 2001 dollars). Examples include carburetor jets and needles. In the case of carburetor jets and needles, your vehicle must meet all the requirements of this part for any air-fuel ratio within the adjustable range described in paragraph (d)(1) of this section.

(1) In your application for certification, specify the adjustable range of air-fuel ratios you expect to occur in use. You may specify it in terms of engine parts (such as the carburetor jet size and needle configuration as a function of atmospheric conditions).

(2) This adjustable range (specified in paragraph (d)(1) of this section) must include all air-fuel ratios between the lean limit and the rich limit, unless you can show that some air-fuel ratios will not occur in use.

(i) The lean limit is the air-fuel ratio that produces the highest engine power output (averaged over the test cycle).

(ii) The rich limit is the richest of the following air-fuel ratios:

(A) The air-fuel ratio that would result from operating the vehicle as you produce it at the specified test conditions. This paragraph (d)(2)(ii)(A) does not apply if you produce the vehicle with an unjetted carburetor so that the vehicle must be jetted by the dealer or operator.

(B) The air-fuel ratio of the engine when you do durability testing.

(C) The richest air-fuel ratio that you recommend to your customers for the applicable ambient conditions.

(3) If the air-fuel ratio of your vehicle is adjusted primarily by changing the carburetor jet size and/or needle configuration, you may submit your recommended jetting chart instead of the range of air-fuel ratios required by paragraph (d)(1) of this section if the following criteria are met:

(i) Good engineering judgment indicates that vehicle operators would not have an incentive to operate the vehicle with richer air-fuel ratios than recommended.

(ii) The chart is based on use of a fuel that is equivalent to the specified test fuel(s). As an alternative you may submit a chart based on a representative in-use fuel if you also provide instructions for converting the chart to be applicable to the test fuel(s).

(iii) The chart is specified in units that are adequate to make it practical for an operator to keep the vehicle properly jetted during typical use. For example, charts that specify jet sizes based on increments of temperature smaller than 20 °F (11.1 °C) or increments of altitude less than 2000 feet would not meet this criteria. Temperature ranges must overlap by at least 5 °F (2.8 °C).

(iv) You follow the jetting chart for durability testing.

(v) You do not produce your vehicles with jetting richer than the jetting chart recommendation for the intended vehicle use.

(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