

## Environmental Protection Agency

## § 86.401–97

(1) For gasoline-fueled engines, calculate the brake-specific emissions and fuel consumption for the complete test as follows:

$$BSHC(T) = 0.35 BSHC(1) + 0.65 BSHC(2)$$

$$BSCO(T) = 0.35 BSCO(1) + 0.65 BSCO(2)$$

$$BSNO_x(T) = 0.35 BSNO_x(1) + 0.65 BSNO_x(2)$$

$$WBSFC(T) = 0.35 WBSFC(1) + 0.65 WBSFC(2)$$

### § 86.346–79 Alternative NO<sub>x</sub> measurement technique.

(a) Oxides of nitrogen (NO<sub>x</sub>) may be measured with the following “alternative instrumentation” for both Diesel and gasoline-fueled engines. The “alternative instrumentation” shall consist of:

(1) A heated sample line maintained above the dew point;

(2) An NO<sub>2</sub> to NO converter obtaining a sample directly from the heated sample line; and

(3) A combination per 40 CFR 86.777 or 40 CFR 86.977, whichever is applicable of a water trap, dryer, flow controls, and an NO NDIR analyzer obtaining a sample from the converter.

(b) The provisions of 40 CFR 86 subpart D shall apply to the “alternative instrumentation”, where applicable, with the following exceptions:

(1) Analyzer specifications found in §§ 86.315, 86.321, and 86.322 do not apply to the “alternative instrumentation”.

(2) For the purposes of this section, the full-scale value specified in § 86.338 (a)(1) shall be 1,500 ppm for Diesel engines and 2,500 ppm for gasoline-fueled engines.

(c) The “alternative instrumentation” shall be calibrated per § 86.330.

(d) The NO NDIR analyzer shall meet the performance and interference specifications contained in 40 CFR 86.777 or 40 CFR 86.977, whichever is applicable.

(e) The operation of the dryer shall follow good engineering practice such that the test results are not altered. Proper preconditioning of the dryer is allowed.

### § 86.347–79 Alternative calculations for diesel engines.

(a) *This section applies to Diesel engines only.* Gasoline-fueled engines must use the calculations in § 86.345.

(b) For Diesel engines, the calculations specified in 40 CFR 86.977–15 may be substituted for § 86.345.

(c) The modal *BSFC* and weighted *BSFC* shall be calculated per § 86.345.

(d) If the provisions of this section are used, a CO<sub>2</sub> measurement is not required.

(e) Both 40 CFR 86.977–15(a) and § 86.313 shall apply to air-flow measurements. For the purposes of this section, the air-flow measurement accuracy specified in § 86.313 shall be ±1 percent.

### § 86.348–79 Alternative to fuel H/C analysis.

(a) Fuel H/C analysis need not be performed if the following average H/C ratios are used for all calculations.

(1) #1B1 Diesel: 1:93

(2) #1B2 Diesel: 1:80

(3) Gasoline: 1.85

(b) [Reserved]

[46 FR 50496, Oct. 13, 1981, and 47 FR 49807, Nov. 2, 1982]

## Subpart E—Emission Regulations for 1978 and Later New Motorcycles, General Provisions

SOURCE: 42 FR 1126, Jan. 5, 1977, unless otherwise noted.

### § 86.401–2006 General applicability.

This subpart applies to 1978 and later model year, new, gasoline-fueled motorcycles built after December 31, 1977, and to 1990 and later model year, new methanol-fueled motorcycles built after December 31, 1989 and to 1997 and later model year, new natural gas-fueled and liquefied petroleum gas-fueled motorcycles built after December 31, 1996 and to 2006 and later model year new motorcycles, regardless of fuel.

[69 FR 2435, Jan. 15, 2004]

### § 86.401–97 General applicability.

(a) This subpart applies to 1978 and later model year, new, gasoline-fueled motorcycles built after 31 December, 1977, and to 1990 and later model year, new, methanol-fueled motorcycles built after 31 December, 1989 and to 1997 and later model year, new, natural gas-fueled and liquefied petroleum gas-

**§ 86.402-78**

**40 CFR Ch. I (7-1-11 Edition)**

fueled motorcycles built after 31 December, 1996.

(b) Motorcycles with engine displacements less than 50 cc (3.1 cu in) are excluded from the requirements of this subpart.

(c) Motorcycles are excluded from the requirements of this subpart, if with an 80 kg (176 lb) driver, it cannot:

(1) Start from a dead stop using only the engine; or

(2) Exceed a maximum speed of 40 km/h (25 mph) on level paved surfaces.

[59 FR 48512, Sept. 21, 1994]

**§ 86.402-78 Definitions.**

(a) The definitions in this section apply to this subpart and also to subpart F.

*Act* means part A of title II of the Clean Air Act, 42 U.S.C. 1857 f-1 through f-7, as amended by Pub. L. 91-604.

*Administrator* means the Administrator of the Environmental Protection Agency or his authorized representative.

*Class*, see § 86.419.

*Crankcase emissions* means airborne substances emitted to the atmosphere from any portion of the engine crankcase ventilation or lubrication systems.

*Curb mass* means the actual or manufacturer's estimated mass of the vehicle with fluids at nominal capacity and with all equipment specified by the Administrator.

*Displacement*, and *Displacement Class*, see § 86.419.

*Engine family* means the basic classification unit of a manufacturer's product line used for the purpose of test fleet selection and determined in accordance with § 86.420.

*Engine-displacement-system combination* means an engine family-displacement-emission control system combination.

*EPA Enforcement Officer* means any officer or employee of the Environmental Protection Agency so designated in writing by the Administrator (or by his designee).

*Exhaust emissions* means substances emitted to the atmosphere from any opening downstream from the exhaust port of a motor vehicle engine.

*Fuel system* means the combination of fuel tank, fuel pump, fuel lines, oil injection metering system, and carburetor or fuel injection components, and includes all fuel system vents.

*Loaded vehicle mass* means curb mass plus 80 kg (176 lb.), average driver mass.

*Model year* means the manufacturer's annual production period (as determined by the Administrator) which includes January first of such calendar year. If the manufacturer has no annual production period, the term *model year* shall mean the calendar year.

*Motorcycle* means any motor vehicle with a headlight, taillight, and stoplight and having: Two wheels, or Three wheels and a curb mass less than or equal to 680 kilograms (1499 pounds).

*Oxides of nitrogen* means the sum of the nitric oxide and nitrogen dioxide contained in a gas sample as if the nitric oxide were in the form of nitrogen dioxide.

*Scheduled maintenance* means any adjustment, repair, removal, disassembly, cleaning, or replacement of vehicle components or systems which is performed on a periodic basis to prevent part failure or vehicle malfunction, or anticipated as necessary to correct an overt indication of vehicle malfunction or failure for which periodic maintenance is not appropriate.

*Span gas* means a gas of known concentration which is used routinely to set the output level of any analyzer.

*System* includes any motor vehicle modification which controls or causes the reduction of substances emitted from motor vehicles.

*Total test distance* is defined for each class of motorcycles in § 86.427-78.

*Useful life* is defined for each class (see § 86.419) of motorcycle:

Class I—5.0 years or 12,000 km (7,456 miles), whichever first occurs.

Class II—5.0 years or 18,000 km (11,185 miles), whichever first occurs.

Class III—5.0 years or 30,000 km (18,641 miles), whichever first occurs.

*Unscheduled maintenance* means any inspection, adjustment, repair, removal, disassembly, cleaning, or replacement of vehicle components or systems which is performed to correct or diagnose a part failure or vehicle

## Environmental Protection Agency

## § 86.405-78

malfunction which was not anticipated.

*Zero kilometers* means that point after normal assembly line operations and adjustments, after normal dealer setup and preride inspection operations have been completed, and before 100 kilometers of vehicle operation of three hours of engine operation have been accumulated, including emission testing if performed.

(b) [Reserved]

[42 FR 1126, Jan. 5, 1977, as amended at 42 FR 56737, Oct. 28, 1977; 49 FR 48138, Dec. 10, 1984]

### § 86.402-98 Definitions.

The definitions of § 86.402-78 apply to this subpart. The following definition in this section is applicable beginning with the 1998 model year:

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

*Motorcycle* means any motor vehicle with a headlight, taillight, and stoplight and having: Two wheels, or Three wheels and a curb mass less than or equal to 793 kilograms (1749 pounds).

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

*Useful life* is defined for each class (see § 86.419) of motorcycle:

- (1) Class I-A—5.0 years or 6,000 km (3,728 miles), whichever occurs first.
- (2) Class I-B—5.0 years or 12,000 km (7,456 miles), whichever occurs first.
- (3) Class II—5.0 years or 18,000 km (11,185 miles), whichever occurs first.
- (4) Class III—5.0 years or 30,000 km (18,641 miles), whichever occurs first.

[63 FR 11849, Mar. 11, 1998, as amended at 69 FR 2435, Jan. 15, 2004]

### § 86.403-78 Abbreviations.

The abbreviations used in this subpart have the following meanings in both capital and lowercase:

ASTM—American Society for Testing and Materials.  
C—Celsius.  
cc—Cubic centimetre(s).  
cfh—Cubic feet per hour.  
cfm—Cubic feet per minute.  
CH<sub>4</sub>—methane.  
cm—Centimetre(s).  
CO—Carbon monoxide.  
CO<sub>2</sub>—Carbon dioxide.

Conc—Concentration.  
cu.—Cubic.  
CVS—Constant volume sampler.  
EGR—Exhaust gas recirculation.  
EP—End point.  
EPA—Environmental Protection Agency.  
F—Fahrenheit.  
h—hour.  
HC—Hydrocarbon(s).  
Hg—Mercury.  
H<sub>2</sub>O—Water.  
in.—Inch(es).  
K—Kelvin.  
kg—Kilogram(s).  
km—Kilometre(s).  
kpa—Kilopascals.  
lb—Pound(s).  
m—Metre(s).  
mph—Miles per hour.  
mm—Millimetre(s).  
N<sub>2</sub>—Nitrogen.  
N<sub>2</sub>O—nitrous oxide.  
NO<sub>x</sub>—Oxides of nitrogen.  
No.—Number.  
O<sub>2</sub>—Oxygen.  
Pa—Pascal(s).  
Pb—lead.  
ppm—Parts per million by volume.  
psi—Pounds per square inch.  
psig—Pounds per square inch gauge.  
R—Rankine.  
rpm—Revolutions per minute.  
wt—Weight.  
°—Degree(s).  
%—Percent.

[42 FR 1126, Jan. 5, 1977, as amended at 74 FR 56373, Oct. 30, 2009]

### § 86.404-78 Section numbering.

(a) The year of initial applicability of a section is indicated by its section number. The two digits following the hyphen designate the first model year for which a section is effective. A section remains effective until superseded.

*Example:* Section 86.411-78 applies to 1978 and subsequent model years until it is superseded. If a § 86.411-81 is promulgated it would take effect beginning with 1981; § 86.411-78 would apply to years 1978 through 1980.

(b) A reference to a section without a year designation implies the appropriate model year.

*Example:* When considering 1979 vehicles a reference to § 86.411 implies § 86.411-79. However if no § 86.411-79 has been promulgated then § 86.411-78 is implied; See paragraph (a) of this section.

### § 86.405-78 Measurement system.

(a) This subpart and subpart F have been written using System International (SI) units. SI units will be

**§ 86.406-78**

**40 CFR Ch. I (7-1-11 Edition)**

used to determine compliance with these regulations. English equivalents have been indicated solely for the user's convenience.

(b) [Reserved]

**§ 86.406-78 Introduction, structure of subpart, further information.**

(a) This subpart contains general provisions regulating the emission of air pollution from new motorcycles. Test procedures are found in subpart F.

(b) Several discrete concepts are addressed:

(1) *Requirements.* Sections 86.407 to 86.415.

(2) *Application for certification.* Sections 86.416 and 86.417.

(3) *Test fleet selection.* Sections 86.418 to 86.423.

(4) *Service accumulation, testing, maintenance, certification.* Sections 86.424 to 86.439.

(5) *Administrative provisions.* Sections 86.440 to 86.444.

(c) The certification procedure to be followed depends upon the manufacturer's projected sales.

(1) New motorcycles, produced by a manufacturer whose projected U.S. sales of motorcycles is 10,000 or more units (for the model year in which certification is sought) shall demonstrate compliance with all general standards and all specific emission requirements before they can be sold in the United States. The manufacturer is required to submit an application with sales data, product information, required maintenance, testing and service accumulation procedures. The Administrator will select vehicle(s) which will represent the manufacturer's product line. The manufacturer is required to construct these vehicles to be representative of actual production. Service is accumulated and emission tests performed with data submitted to the Administrator. The Administrator may run his own tests to confirm the manufacturer's results. The Administrator will review the data and either grant or deny certification. If the manufacturer wishes to make changes to a certified vehicle, or to produce a new vehicle, the Administrator must be notified. The Administrator may require testing to demonstrate continued compliance with emission standards. Each vehicle

must be labeled with tune up specifications and the purchaser must be supplied with maintenance instructions. Also, information on production vehicles must be supplied to the Administrator.

(2) New motorcycles produced by a manufacturer whose projected U.S. sales of motorcycles is less than 10,000 units (for the model year in which certification is sought) shall meet both the general standards and specific emission requirements described in §§ 86.401 through 86.417, § 86.425, § 86.437, and §§ 86.440 through 86.444 of this subpart before they can be sold in the United States. The manufacturer is required to submit an application containing a statement that his vehicles conform to the applicable emission standards. The manufacturer is required to retain in his records, but not submit with the application, valid emission test data which support his statement. The Administrator will review the application and either grant or deny certification. Each vehicle must be labeled with tune up specifications and the purchaser must be supplied with maintenance instructions. Also, information on production vehicles must be supplied to the Administrator.

(d) Manufacturers who are considering an application should contact: Director, Vehicle Programs and Compliance Division, Environmental Protection Agency, 2565 Plymouth Rd., Ann Arbor, Michigan 48105 and state whether he/she plans to certify for total sales of greater than or less than 10,000 vehicles for the applicable model year.

[42 FR 1126, Jan. 5, 1977, as amended at 63 FR 11849, Mar. 11, 1998]

**§ 86.407-78 Certificate of conformity required.**

(a) *General requirement.* Every new motorcycle manufactured for sale, sold, offered for sale, introduced or delivered for introduction into commerce, or imported into the United States which is subject to any of the standards prescribed in this subpart is required to be covered by a certificate of conformity issued pursuant to this

subpart, except as specified in paragraph (b) of this section, or otherwise exempted from this requirement.

(b) *Interim personal use exemption.* An individual may manufacture one motorcycle for personal use without a certificate of conformity, subject to the following provisions:

(1) The motorcycle may not be manufactured from a certified motorcycle. The motorcycle may not be manufactured from a partially complete motorcycle that is equivalent to a certified motorcycle, unless the emission controls are included in the final product. The motorcycle must be manufactured primarily from unassembled components, but may incorporate some preassembled components. For example, fully preassembled transmissions may be used.

(2) The motorcycle may not be sold within five years of the date of final assembly.

(3) No individual may manufacture more than one motorcycle during his or her lifetime under this exemption. This restriction applies with respect to the person who purchases the components and/or uses the motorcycle, rather than to the person(s) who actually assemble(s) the motorcycle.

(4) This exemption may not be used to circumvent the requirements of paragraph (a) of this section or the requirements of the Clean Air Act. For example, this exemption would not cover a case in which an entity purchases a kit, assembles the kit, and then sells it to another party; this would be considered to be the sale of the complete motorcycle.

(c) *Interim display exemptions.* Uncertified custom motorcycles that are used solely for display purposes are exempt from the standards provided they conform to the requirements of this paragraph (c). Unless a certificate of conformity has been received for such motorcycles, they may not be operated on the public streets or highways except for that operation incident and necessary to the display purpose.

(1) No request is necessary for display motorcycles that will not be sold or leased.

(2) The following requirements apply for exempting display motorcycles that will be sold or leased:

(i) Manufacturers planning to sell motorcycles for display must notify EPA of their intent to do so before they sell any exempted motorcycles. They must also maintain sales records of exempted motorcycles for at least three years and make them available to EPA upon request.

(ii) No manufacturer may sell or lease more than 24 exempted display motorcycles in any single calendar year.

(iii) Anyone selling or leasing a motorcycle exempt under this paragraph (c) must ensure that the buyer or lessee agrees to comply with the display exemption terms in the regulations.

(3) Each motorcycle exempt under this paragraph (c) must include a label that identifies the manufacturer and includes the following statement: THIS MOTORCYCLE IS EXEMPT FROM EPA EMISSION REQUIREMENTS. ITS USE ON PUBLIC ROADS IS LIMITED PURSUANT TO 40 CFR 86.407-78(c). EPA may allow manufacturers to locate the label in a location where it is obscured or hidden by a readily removable component. For example, EPA may allow the label to be located under the seat.

(4) As described in 40 CFR part 1051, motorcycles that are not considered to be motor vehicles according to 40 CFR 85.1703(a) may be exempt under this paragraph (c) from the standards and requirements of 40 CFR part 1051. Such motorcycles shall be combined with the manufacturer's highway motorcycles with respect to the sales restriction described in paragraph (c)(2)(ii) of this section.

(5) This exemption may not be used to circumvent the requirements of paragraph (a) of this section or the requirements of the Clean Air Act.

[69 FR 2435, Jan. 15, 2004]

**§ 86.408-78 General standards; increase in emissions; unsafe conditions.**

(a) Any system installed on or incorporated in a new motorcycle to enable such vehicle to conform to standards imposed by this subpart:

(1) Shall not in its operation or function cause the emission into the ambient air of any noxious or toxic substance that would not be emitted in

**§ 86.409-78**

**40 CFR Ch. I (7-1-11 Edition)**

the operation of such vehicle without such system, except as specifically permitted by regulation; and

(2) Shall not in its operation, function, or malfunction result in any unsafe condition endangering the motorcycle, its rider(s), or persons or property in close proximity to the vehicle.

(b) Every manufacturer of new motorcycles subject to any of the standards imposed by this subpart shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motorcycles in accordance with good engineering practice to ascertain that such test vehicles will meet the requirements of this section for the useful life of the vehicle.

**§ 86.409-78 Defeat devices, prohibition.**

(a) No motorcycle shall be equipped with a defeat device.

(b) Defeat device means any element of design which:

(1) Senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying or deactivating the operation of any part of the emission control system and

(2) Reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal urban vehicle operation and use, unless

(i) Such conditions are substantially included in the Federal emission test procedure, or

(ii) The need for the device is justified in terms of protecting the vehicle against damage or accident, or

(iii) The device does not go beyond the requirements of engine starting or warm-up.

**§ 86.410-90 Emission standards for 1990 and later model year motorcycles.**

(a)(1) Exhaust emissions from 1990 and later model year gasoline-fueled, natural gas-fueled and liquefied petroleum gas-fueled motorcycles shall not exceed (compliance with these standards is optional prior to the 1997 model year for natural gas-fueled and liquefied petroleum gas-fueled motorcycles):

(i) *Hydrocarbons*. 5.0 grams per vehicle kilometer.

(ii) *Carbon monoxide*. 12 grams per vehicle kilometer.

(2) Exhaust emissions from 1990 and later model year methanol-fueled motorcycles shall not exceed:

(i) *Total hydrocarbon equivalent*. 5.0 grams per vehicle kilometer.

(ii) *Carbon monoxide*. 12 grams per vehicle kilometer.

(3) The standards set forth in paragraphs (a) (1) and (2) of this section refer to the exhaust emitted over driving schedule as set forth in subpart F and measured and calculated in accordance with those procedures.

(b) No crankcase emissions shall be discharged into the ambient atmosphere from any new motorcycle subject to this subpart.

[54 FR 14539, Apr. 11, 1989, as amended at 59 FR 48512, Sept. 21, 1994]

**§ 86.410-2006 Emission standards for 2006 and later model year motorcycles.**

(a)(1) Exhaust emissions from Class I and Class II motorcycles shall not exceed the standards listed in the following table:

TABLE E2006-1—CLASS I AND II MOTORCYCLE EMISSION STANDARDS

| Model year           | Emission standards (g/km) |      |
|----------------------|---------------------------|------|
|                      | HC                        | CO   |
| 2006 and later ..... | 1.0                       | 12.0 |

(2) Exhaust emissions from Class III motorcycles shall not exceed the standards listed in the following table:

TABLE E2006-2—CLASS III MOTORCYCLE EMISSION STANDARDS

| Tier         | Model year           | Emission standards (g/km) |      |
|--------------|----------------------|---------------------------|------|
|              |                      | HC + NO <sub>x</sub>      | CO   |
| Tier 1 ..... | 2006-2009 .....      | 1.4                       | 12.0 |
| Tier 2 ..... | 2010 and later ..... | 0.8                       | 12.0 |

(b) The standards set forth in paragraphs (a) (1) and (2) of this section refer to the exhaust emitted over the driving schedule as set forth in subpart F and measured and calculated in accordance with those procedures.

## Environmental Protection Agency

## § 86.412-78

(c) Compliance with the HC+NO<sub>x</sub> standards set forth in paragraph (a)(2) of this section may be demonstrated using the averaging provisions of § 86.449.

(d) No crankcase emissions shall be discharged into the ambient atmosphere from any new motorcycle subject to this subpart.

(e) Manufacturers with fewer than 500 employees worldwide and producing fewer than 3,000 motorcycles per year in the United States are considered small-volume manufacturers for the purposes of this section. The following provisions apply for these small-volume manufacturers:

(1) Small-volume manufacturers are not required to comply with the Tier 1 standards applicable to Class III motorcycles until model year 2008.

(2) Small-volume manufacturers are not required to comply with the Tier 2 standards applicable to Class III motorcycles.

(3) Small-volume manufacturers are not required to comply with permeation requirements in paragraph (g) of this section until model year 2010.

(f) Manufacturers may choose to certify their Class I and Class II motorcycles to an HC + NO<sub>x</sub> standard of 1.4 g/km instead of the 1.0 g/km HC standard listed in paragraph (a)(1) of this section. Engine families certified to this standard may demonstrate compliance using the averaging provisions of § 86.449.

(g) Model year 2008 and later motorcycles must comply with the evaporative emission standards described in 40 CFR 1051.110. Manufacturers may show compliance using the design-based certification procedures described in 40 CFR 1051.245. Manufacturers may comply with the tank permeation standards using the averaging provisions in 40 CFR part 1051, subpart H, but may not include any motorcycles equipped with metal fuel tanks in their average emission level. Manufacturers may not average between highway motorcycle engine families and recreational vehicle families.

[69 FR 2436, Jan. 15, 2004, as amended at 70 FR 40434, July 13, 2005]

### § 86.411-78 Maintenance instructions, vehicle purchaser.

(a) The manufacturer shall furnish or cause to be furnished to the ultimate purchaser of each new motorcycle the written instructions for the periodic and anticipated maintenance and use of the vehicle by the ultimate purchaser as may be reasonable and necessary to assure the proper functioning of emission control systems for the vehicle's useful life.

(1) Such instructions shall be provided for those vehicle and engine components listed in appendix VI to this part (and for any other components) to the extent that maintenance of these components is necessary to assure the proper functioning of emission control systems.

(2) Such instructions shall be in the English language and in clear, and to the extent practicable, nontechnical language.

(b) The maintenance instructions required by this section shall:

(1) Contain a general description of the documentation which the manufacturer will require from the ultimate purchaser or any subsequent purchaser as evidence of compliance with the instructions, and

(2) Specify the performance of all scheduled maintenance performed by the manufacturer under § 86.428.

### § 86.412-78 Maintenance instructions, submission to Administrator.

(a) *Instructions for ultimate purchaser.*

(1) The manufacturer shall provide to the Administrator, at least 30 days before being supplied to the ultimate purchaser (unless the Administrator consents to a lesser period of time), a copy of the maintenance instructions which the manufacturer proposes to supply to the ultimate purchaser. The instructions must include the periodic and anticipated maintenance contained in the application for certification or contained in the manufacturers' records (if anticipated sales are less than 10,000 units). Such instructions must be reasonable and necessary to assure the proper functioning of the vehicle's emission control systems.

(2) Any revision to the maintenance instructions which will affect emissions shall be supplied to the Administrator at least 30 days before being supplied to the ultimate purchaser unless the Administrator consents to a lesser period of time.

(b) *Other instructions.* The manufacturer of any new motorcycle subject to any of the standards prescribed in this subpart shall submit to the Administrator at the time of issuance by the manufacturer, copies of all sales brochures, instructions, or explanations regarding the use, repair, adjustment, maintenance, or testing of such vehicle relevant to the control of crankcase or exhaust emissions, issued by the manufacturer for use by other manufacturers, assembly plants, distributors, dealers, repair facilities, and ultimate purchasers. Any material not translated into the English language need not be submitted unless specifically requested by the Administrator.

**§ 86.413-78 Labeling.**

(a)(1) The manufacturer of any motorcycle shall, at the time of manufacture, affix a permanent, legible label, of the type and in the manner described below, containing the information hereinafter provided, to all production models of such vehicles available for sale to the public and covered by a certificate of conformity.

(2) A permanent, legible label shall be affixed in a readily accessible position. Multi-part labels may be used.

(3) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label.

(4) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

- (i) *The label heading.* Vehicle Emission Control Information;
- (ii) Full corporate name and trademark of the manufacturer;
- (iii) Engine displacement (in cubic centimetres) and engine family identification;

(iv) Engine tuneup specifications and adjustments, as recommended by the manufacturer, including idle speed, ignition timing, and the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop). These specifications shall indicate the proper transmission position during tuneup;

(v) Any specific fuel or engine lubricant requirements (e.g., lead content, Research octane number, engine lubricant type);

(vi) An unconditional statement of conformity to USEPA regulations which includes the model year; for example, This Vehicle Conforms to USEPA Regulation Applicable to . . . . . Model Year New Motorcycles.

(b) The provisions of this section shall not prevent a manufacturer from also reciting on the label that such vehicle conforms to any other applicable Federal or State standards for new motorcycles or any other information that such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle.

[42 FR 1126, Jan. 5, 1977, as amended at 42 FR 56737, Oct. 28, 1977]

**§ 86.413-2006 Labeling.**

(a)(1) The manufacturer of any motorcycle shall, at the time of manufacture, affix a permanent, legible label, of the type and in the manner described in this section, containing the information provided in this section, to all production models of such vehicles available for sale to the public and covered by a certificate of conformity.

(2) A permanent, legible label shall be affixed in a readily accessible position. Multi-part labels may be used.

(3) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label, and shall not be affixed to any part which is easily detached from the vehicle or is likely to be replaced during the useful life of the vehicle.

(4) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color



## Environmental Protection Agency

## § 86.415-78

that contrasts with the background of the label:

- (i) The label heading shall read: "Vehicle Emission Control Information";
- (ii) Full corporate name and trademark of the manufacturer;
- (iii) Engine displacement (in cubic centimeters or liters) and engine family identification;
- (iv) Engine tuneup specifications and adjustments, as recommended by the manufacturer, including, if applicable: idle speed, ignition timing, and the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop). These specifications shall indicate the proper transmission position during tuneup, and which accessories should be in operation and which systems should be disconnected during a tuneup;
- (v) Any specific fuel or engine lubricant requirements (e.g., lead content, research octane number, engine lubricant type);
- (vi) Identification of the exhaust emission control system, using abbreviations in accordance with SAE J1930, June 1993, including the following abbreviations for items commonly appearing on motorcycles:  
OC Oxidation catalyst;  
TWC Three-way catalyst;  
AIR Secondary air injection (pump);  
PAIR Pulsed secondary air injection;  
DFI Direct fuel injection;  
O2S Oxygen sensor;  
HO2S Heated oxygen sensor;  
EM Engine modification;  
CFI Continuous fuel injection;  
MFI Multi-port (electronic) fuel injection;  
and  
TBI Throttle body (electronic) fuel injection.
- (viii) An unconditional statement of conformity to U.S. EPA regulations which includes the model year; for example, "This Vehicle Conforms to U.S. EPA Regulations Applicable to \_\_\_ Model Year New Motorcycles" (the blank is to be filled in with the appropriate model year). For all Class III motorcycles and for Class I and Class II motorcycles demonstrating compliance with the averaging provisions in 40 CFR 86.449 the statement must also include the phrase "is certified to an HC+NO<sub>x</sub> emission standard of \_\_\_ grams/kilometer" (the blank is to be filled in with the Family Emission

Limit determined by the manufacturer).

- (b) The provisions of this section shall not prevent a manufacturer from also reciting on the label that such vehicle conforms to any other applicable Federal or State standards for new motorcycles or any other information that such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle.

[70 FR 40434, July 13, 2005]

### § 86.414-78 Submission of vehicle identification number.

- (a) Upon request by the Administrator, the manufacturer of any motorcycle covered by a certificate of conformity shall, within 30 days, identify by vehicle identification number, the vehicle(s) covered by the certificate of conformity.
- (b) The manufacturer of any motorcycle covered by a certificate of conformity shall furnish to the Administrator, at the beginning of each model year, any vehicle identification number coding system which identifies whether such vehicle(s) are covered by a certificate of conformity.

### § 86.415-78 Production vehicles.

- (a) Any manufacturer obtaining certification shall supply to the Administrator, upon his request, a reasonable number of production vehicles selected by the Administrator which are representative of the engines, emission control systems, fuel systems, and transmissions offered and typical of production models available for sale under the certificate. These vehicles shall be supplied for testing at such time and place and for such reasonable periods as the Administrator may require.
- (b) Any manufacturer obtaining certification shall notify the Administrator of the number of vehicles of each engine family-engine displacement-emission control system-fuel system-transmission type-inertial mass category combination produced for sale in the United States during the preceding year. This report must be submitted every year within 45 days after the end of the model year.

**§ 86.416–80**

**40 CFR Ch. I (7–1–11 Edition)**

(c) All motorcycles covered by a certificate of conformity shall prior to delivery to the ultimate purchaser be adjusted, by the manufacturer or his agent, to the ignition timing specification detailed in § 86.413.

[42 FR 1126, Jan. 5, 1977, as amended at 49 FR 48138, Dec. 10, 1984; 75 FR 22980, Apr. 30, 2010]

**§ 86.416–80 Application for certification.**

(a) New motorcycles produced by a manufacturer whose projected sales in the United States is 10,000 or more units (for the model year in which certification is sought) are covered by the following:

(1) An application for a certificate of conformity to the regulations in the English language applicable to new motorcycles shall be made to the Administrator by the manufacturer and shall be updated and corrected by amendment. Where possible, a manufacturer should include in a single application for certification, a description of all vehicles in each class for which certification is required. A manufacturer may, however, choose to apply separately for certification of part of his product line. The selection of test vehicles and the computation of test results will be determined separately for each application.

(2) The application shall be in writing signed by an authorized representative of the manufacturer, and shall include the following:

(i) Identification and description of the vehicles covered by the application and a description of their engine, emission control system and fuel system components. This shall include a detailed description of each auxiliary emission control device. Transmission gear ratios, overall drive ratios and vehicle mass (or range of mass) shall also be included. The label and its location shall be specified, § 86.413. Available optional equipment shall be described.

(ii) The range of available fuel and ignition system adjustments.

(iii) Projected U.S. sales data sufficient to enable the Administrator to select a test fleet representative of the vehicles for which certification is requested. If reduced testing based on low sales volume is requested the

method of predicting sales shall be described.

(iv) A description of the test equipment (if applicable) and fuel and engine lubricant proposed to be used.

(v) A description of the proposed service accumulation procedure and a description of the proposed scheduled maintenance.

(vi) A statement of recommended periodic and anticipated maintenance and procedures necessary to assure that the vehicles covered by a certificate of conformity in operation conform to the regulations, listings of the fuels and lubricants to be recommended to the ultimate purchaser and a description of the program for training of personnel for such maintenance, and the equipment required to perform this maintenance.

(vii) A description of normal assembly line operations and adjustments if such procedures exceed 100 km (62 miles) or three hours of engine operations.

(viii) Beginning with model year 2008, a description of the evaporative emission controls and applicable test data.

(ix) The name of 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.

(3) Completed copies of the application and of any amendments thereto, and all notifications under §§ 86.438 and 86.439 shall be submitted in such multiple copies as the Administrator may require.

(4) For purposes of this section, “auxiliary emission control device” means any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.

(b) New motorcycles produced by a small-volume manufacturer (as defined in § 86.410(e)) or by any other manufacturer whose projected sales in the United States is less than 10,000 units

## Environmental Protection Agency

## § 86.416-80

(for the model year in which certification is sought) are covered by the following:

(1) All the information that would otherwise be required to be submitted to EPA under paragraph (a)(2) of this section must be made a part of the manufacturer's records, except there is no requirement to submit the information to the Administrator or receive approval from the Administrator.

(2) Section 86.437 details the statements that these manufacturers are required to provide to the Administrator.

(c) For the purpose of determining applicability of paragraphs (a) or (b) of this section, where there is more than one importer or distributor of vehicles manufactured by the same person, the projected sales shall be the aggregate of the projected sales of those vehicles by such importers or distributors.

(d)(1) The Administrator has determined that the following certification procedure may be used to demonstrate compliance for each motorcycle engine family for which certification is sought. Manufacturers may follow these procedures at their option.

(i) The manufacturer shall satisfy all applicable requirements of part 86 necessary to demonstrate compliance with the standards for each class of new motorcycles for which certification is sought.

(ii) As specifically allowed by the Administrator the manufacturer shall assume the responsibility for part or all of the decisions applicable to the family for which certification is sought and which are within the jurisdiction of the Administrator, with the exception that the Administrator will determine whether a test motorcycle has met the applicable emission standards.

(iii) The manufacturer shall maintain, update, and correct all records and information required.

(iv) The Administrator may review a manufacturer's records at any time. At the Administrator's discretion, this review may take place either at the manufacturer's facility or at another facility designated by the Administrator.

(v) At the Administrator's request, the manufacturer shall notify the Administrator of the status of the certification program including projected schedules of those significant accom-

plishments specified by the Administrator.

(vi) The manufacturer shall permit the Administrator to inspect any facilities, records, and vehicles from which data were obtained under the abbreviated certification review procedure.

(vii) Upon completing all applicable requirements of part 86 the manufacturer shall submit a separate application for a certificate of conformity for each class of new motorcycles for which certification is sought. Such application shall be made in writing to the Administrator by the manufacturer.

(A) The Administrator may approve or disapprove in whole or in part an application for certification according to the procedures specified in § 86.417-78(b).

(B) If, after a review of the application for certification, test reports and data submitted by the manufacturer, data obtained during an inspection, and any other pertinent data or information, the Administrator determines that a test vehicle(s) has not met the requirements of the Act and the applicable subpart, he will notify the manufacturer in writing and set forth the reason(s) for the determination.

(2) Those families which are not following the procedure described in paragraph (d)(1) of this section will follow the procedure in this subpart with the exception of paragraph (d)(1) of this section.

(e) The Administrator may require that an engine family previously allowed to be subjected to the abbreviated certification review procedure be transferred to the complete review procedure.

(f) Upon request, the Administrator may allow a manufacturer to use alternate certification procedures that are equivalent in terms of demonstrating compliance with the requirements of this part.

[42 FR 56737, Oct. 28, 1977, as amended at 45 FR 26045, Apr. 17, 1980; 49 FR 48138, Dec. 10, 1984; 69 FR 2436, Jan. 15, 2004; 71 FR 51487, Aug. 30, 2006]

§ 86.417-78

40 CFR Ch. I (7-1-11 Edition)

**§ 86.417-78 Approval of application for certification.**

(a) After a review of the application for certification and any other information which the Administrator may require, the Administrator may approve the application and select a test fleet as appropriate.

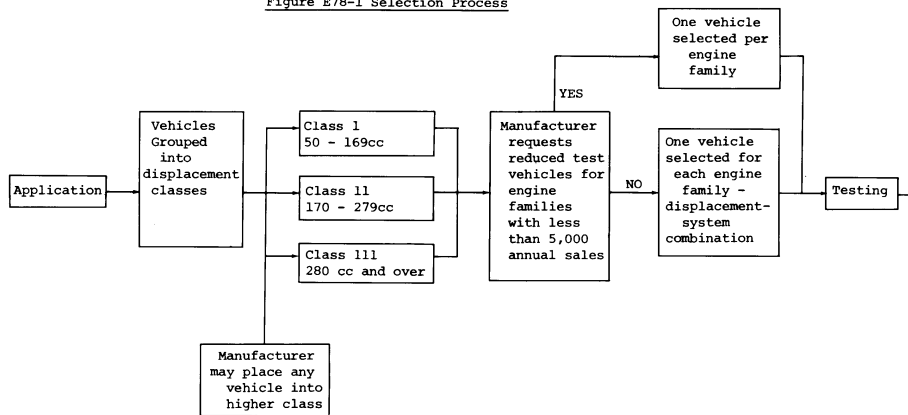
(b) The Administrator may disapprove in whole or in part an application for certification for reasons including incompleteness, inaccuracy, inappropriate proposed distance accumulation procedures, maintenance, test equipment, label content or location,

fuel or lubricant, and incorporation of defeat devices in vehicles described by the application. Where any part of an application is rejected the Administrator shall notify the manufacturer in writing and set forth the reasons for such rejection. The manufacturer may request a hearing under § 86.443.

**§ 86.418-78 Test fleet selection.**

(a) Test fleet selection and requirements on test vehicles are found in §§ 86.419 to 86.423. This selection process is also graphically depicted in Figure E78-1.

Figure E78-1 Selection Process



(b) [Reserved]

**§ 86.419-78 Engine displacement, motorcycle classes.**

(a)(1) Engine displacement shall be calculated using nominal engine values and rounded to the nearest whole cubic centimetre, in accordance with ASTM E 29-67.

(2) For rotary engines, displacement means the maximum volume of a combustion chamber between two rotor tip seals minus the minimum volume of that combustion chamber between those two rotor tip seals times three times the number of rotors.

$$\text{cc} = (\text{max. chamber volume} - \text{min. chamber volume}) \times 3 \times \text{no. of rotors}$$

(b) Motorcycles will be divided into classes based on engine displacement.

(1) Class I—50 to 169 cc (3.1 to 10.4 cu. in.).

(2) Class II—170 to 279 cc (10.4 to 17.1 cu. in.).

(3) Class III—280 cc and over (17.1 cu. in. and over).

(c) At the manufacturer's option, a vehicle described in an application for certification may be placed in a higher class (larger displacement). All procedures for the higher class must then be complied with, compliance with emission standards will be determined on the basis of engine displacement.

**§ 86.419-2006 Engine displacement, motorcycle classes.**

(a)(1) Engine displacement shall be calculated using nominal engine values and rounded to the nearest whole cubic centimeter, in accordance with ASTM

## Environmental Protection Agency

## § 86.420-78

E 29-93a (incorporated by reference in § 86.1).

(2) For rotary engines, displacement means the maximum volume of a combustion chamber between two rotor tip seals, minus the minimum volume of the combustion chamber between those two rotor tip seals, times three times the number of rotors, according to the following formula:

$$\text{cc} = (\text{max. chamber volume} - \text{min. chamber volume}) \times 3 \times \text{no. of rotors}$$

(b) Motorcycles will be divided into classes based on engine displacement.

(1) Class I—0 to 169 cc (0 to 10.4 cu. in.).

(i) Class I motorcycles with engine displacement less than 50 cc comprise the Class I-A subclass.

(ii) Class I motorcycles with engine displacement 50 cc or higher comprise the Class I-B subclass.

(2) Class II—170 to 279 cc (10.4 to 17.1 cu. in.).

(3) Class III—280 cc and over (17.1 cu. in. and over).

(c) At the manufacturer's option, a vehicle described in an application for certification may be placed in a higher class (larger displacement). All procedures for the higher class must then be complied with and compliance with emission standards will be determined on the basis of engine displacement.

[69 FR 2437, Jan. 15, 2004]

### § 86.420-78 Engine families.

(a) The vehicles covered in the application will be divided into groupings whose engines are expected to have similar emission characteristics throughout their useful life. Each group of engines with similar emission characteristics shall be defined as a separate engine family.

(b) *Reciprocating families.* To be classed in the same engine family, reciprocating engines must be identical in all of the following applicable respects:

- (1) The combustion cycle.
- (2) The cooling mechanism.
- (3) The cylinder configuration (inline, vee, opposed, bore spacings, etc.).
- (4) The number of cylinders.
- (5) The engine displacement class, § 86.419.

(6) The method of air aspiration.

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

(8) The thermal reactor characteristics.

(9) The number of carburetors.

(10) The prechamber characteristics.

(c) At the manufacturer's option, reciprocating engines identical in all the respects listed in paragraph (b) of this section may be further divided into different engine families if the Administrator determines that they may be expected to have different emission characteristics. This determination will be based upon a consideration of features such as:

(1) The bore and stroke.

(2) The combustion chamber configuration.

(3) The intake and exhaust timing method of actuation (poppet valve, reed valve, rotary valve, etc.).

(4) The intake and exhaust valve or port sizes, as applicable.

(5) The fuel system.

(6) The exhaust system.

(d) *Rotary families.* To be classed in the same engine family, rotary combustion cycle engines must be identical in all of the following applicable respects:

(1) The major axis of the epitrochoidal curve.

(2) The minor axis of the epitrochoidal curve.

(3) The generating radius of the epitrochoidal curve.

(4) The cooling mechanism.

(5) The number of rotors.

(6) The engine displacement class, § 86.419.

(7) The method of air aspiration.

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

(9) The thermal reactor characteristics.

(10) The number of carburetors.

(11) The prechamber characteristics.

(e) At the manufacturer's option, rotary combustion cycle engines identical in all the respects listed in paragraph (d) of this section, may be further divided into different engine families if the Administrator determines that they may be expected to have different emission characteristics. This

**§ 86.421-78**

determination will be based upon a consideration of features, such as:

- (1) The width of the rotor housing.
- (2) The type and location of intake port (side, peripheral, combination, etc.).
- (3) The number of spark plugs per rotor.
- (4) The fuel system.
- (5) The exhaust system.
- (f) Where engines are of a type which cannot be divided into engine families based upon the criteria listed in paragraphs (b) and (d) of this section, the Administrator will establish families of those engines based upon the features most related to their emission characteristics.

[42 FR 1126, Jan. 5, 1977, as amended at 44 FR 48205, Aug. 17, 1979]

**§ 86.421-78 Test fleet.**

(a) A test vehicle will be selected by the Administrator to represent each engine-displacement-system combination. The configuration (engine calibration, transmission, drive ratio, mass, options, etc.) in the manufacturer's application which the Administrator believes has the greatest probability of exceeding the standards will be selected.

(b) At the manufacturer's option, the Administrator will only select one vehicle to represent each engine family where the total projected annual sales for that family are less than 5,000 vehicles.

(c) A manufacturer may elect to operate and test additional vehicles which are identical to those selected by the Administrator. Written notice of a commitment to operate and test additional vehicles shall be given to the Administrator prior to the start of testing and not later than 30 days following notification of the test fleet selection. The results of tests performed by the manufacturer will be combined to determine deterioration factors. Each vehicle must meet applicable standards when tested by the Administrator and when those results are projected to the useful life.

(d) In lieu of testing a test vehicle and submitting data therefore, a manufacturer may, with the prior written approval of the Administrator, submit exhaust emission data on a similar ve-

**40 CFR Ch. I (7-1-11 Edition)**

hicle for which certification has previously been obtained or for which all applicable data has previously been submitted.

**§ 86.422-78 Administrator's fleet.**

The Administrator may require additional test vehicles identical in all material respects to vehicles selected in accordance with § 86.421. The number of vehicles selected shall not increase the size of the test fleet by more than 20 percent or one vehicle, whichever is greater.

**§ 86.423-78 Test vehicles.**

(a)(1) Before beginning service accumulation on a test vehicle, the manufacturer may perform a zero-kilometer exhaust emission test.

(2) If such a test is performed, the data shall be submitted to the Administrator when the application is submitted.

(3) Zero-kilometer test results shall not be included in the determination of deterioration factors.

(b) Once a manufacturer begins to operate a test vehicle, as indicated by compliance with paragraph (a) of this section, the data from the vehicle will be used, unless specified otherwise by the Administrator. Discontinuation of a vehicle shall be allowed only with the written consent of the Administrator.

(c) Test vehicles shall be calibrated at zero kilometres within the production tolerances applicable to the manufacturer's specifications.

(d) The Administrator may disqualify a vehicle which receives assembly line operations and adjustments which will not be performed on production vehicles.

[42 FR 1126, Jan. 5, 1977, as amended at 49 FR 48138, Dec. 10, 1984]

**§ 86.425-78 Test procedures.**

(a) Motorcycle emission test procedures are found in subpart F.

(b) The Administrator may prescribe emission test procedures for any motorcycle which he determines is not susceptible to satisfactory testing by the procedures set forth in subpart F.

(c) Testing of any type with respect to any test vehicle other than that specified in this subpart and subpart F

**Environmental Protection Agency**

**§ 86.427-78**

is not allowed except as specifically authorized by the Administrator.

**§ 86.426-78 Service accumulation.**

(a) The procedure for service accumulation will be the Durability Driving Schedule as specified in appendix IV to this part. A modified procedure may also be used if approved in advance by the Administrator. Except with the advance approval of the Administrator, all vehicles will accumulate distance at a measured curb mass which is within 5 kg (11.0 lb) of the loaded vehicle mass specified by the Administrator.

(b) During service accumulation, vehicles shall not be operated for more than 12 hours during an operating sequence. Engine shutdowns are permitted during the operating sequence, but the periods of shutdown are not included in the 12 hour total. Following each operating sequence, the vehicle shall soak, without operation, for a minimum of 8 hours. During soak periods, the vehicle shall be exposed to normal outside ambient temperatures and humidity conditions unless vehicle maintenance or servicing is being performed.

(c) The manufacturer's recommended shifting procedure will be used for laps 1 through 10. Lap 11 shifts (W.O.T. accelerations) must be conducted at the manufacturer's recommended maximum safe engine speed.

[42 FR 1126, Jan. 5, 1977, as amended at 42 FR 56737, Oct. 28, 1977]

**§ 86.427-78 Emission tests.**

(a)(1) Each test vehicle shall be driven with all emission control systems installed and operating for the following total test distances, or for such lesser distances as the Administrator may agree to as meeting the objectives of this procedure. (See §86.419 for class explanation.)

| Displacement class | Total test distance (kilometers) | Minimum test distance (kilometers) | Minimum number of tests |
|--------------------|----------------------------------|------------------------------------|-------------------------|
| I .....            | 6,000                            | 2,500                              | 4                       |
| II .....           | 9,000                            | 2,500                              | 4                       |
| III .....          | 15,000                           | 3,500                              | 4                       |

(2) A zero kilometer emission test may be performed prior to the beginning of service accumulation.

(b) All vehicles shall undergo at least four emission tests; one at the minimum test distance, one before and one after periodic maintenance, and one at the total test distance. If no maintenance is scheduled, then at least two tests will be performed, at equal intervals, between the minimum and total test distances. Additional tests may be performed; such tests must be at equal intervals and approved by the Administrator prior to starting service accumulation.

(c) Where the Administrator agrees to a lesser distance for service accumulation, he may modify the maintenance provisions of this subpart.

(d) All tests required by this subpart must be conducted at an accumulated distance within 250 kilometers (155 mi) of the nominal distance at each test point.

(e)(1) If a manufacturer conducts multiple tests at any test point at which the data are intended to be used in the calculation of the deterioration factor, the number of tests must be the same at each point and may not exceed three valid tests unless the manufacturer chooses to average the test results.

(2) If the manufacturer chooses to average the test results at a test point, he may conduct more tests than the minimum number of tests conducted at any other test point.

The results of the multiple tests shall be averaged to create a single value which is the test point value used in the deterioration factor calculation specified in §86.432-78.

(3) When using this option to generate data for a particular test point, the manufacturer must include in the average all valid test data generated at that test point.

(4) The manufacturer shall follow the same procedure for all exhaust pollutants.

(5) The test results obtained from the emission tests performed before and after maintenance affecting emissions shall not be averaged.

(f) The Administrator may require that any one or more of the test vehicles be submitted to him, at such places as he may designate, for the purpose of conducting emissions tests. The Administrator may specify that he will

conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(g) Whenever the Administrator conducts a test on a test vehicle, the results of that test, unless subsequently invalidated by the Administrator, shall comprise the data for the vehicle at that prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards.

[42 FR 1126, Jan. 5, 1977, as amended at 49 FR 48139, Dec. 10, 1984]

**§ 86.428-80 Maintenance, scheduled; test vehicles.**

(a) Periodic maintenance on the engine, emission control system, and fuel system of test vehicles shall be scheduled for performance at the same distance intervals that will be specified in the manufacturer's maintenance instructions furnished to the ultimate purchaser. Such maintenance shall be performed only under the following provisions.

(b) Periodic major engine tune-ups to the manufacturer's specifications may be performed no more frequently than as follows nor may any tune-up be performed within 1000 km prior to the official test.

| Displacement class | Minimum interval (kilometer) |
|--------------------|------------------------------|
| I .....            | 3,000                        |
| II .....           | 3,000                        |
| III .....          | 4,000                        |

(c) A scheduled major engine tune-up shall be restricted to items listed below and shall be conducted in a manner consistent with service instructions and specifications provided by the manufacturer for use by customer service personnel. The following items may be inspected, replaced, cleaned, adjusted, and/or serviced as required: (1) Breaker points, timing, (2) idle speed and idle air/fuel mixture, (3)

valve lash, (4) engine bolt torque, and (5) spark plugs.

(d) The Administrator will specify the ignition timing, idle air fuel mixture and other fuel system adjustments to be used at each tune-up. The settings selected will be those the Administrator deems appropriate within the physically available range.

(e) Periodic change of engine and transmission oil, and change or service of oil, air, and fuel filters will be allowed at the same distance intervals that will be specified in the manufacturer's maintenance instructions.

(f) Requests for authorization of periodic maintenance of emission control related components not specifically authorized to be maintained by this section, and for anticipated maintenance (see § 86.428), must be made prior to the beginning of distance accumulation. The Administrator will approve the performance of such maintenance if the manufacturer makes a satisfactory showing that the maintenance will be performed on vehicles in use and that the maintenance is reasonable and necessary.

(1) The EGR system may be serviced a maximum of two times during the durability service accumulation if failure of the EGR system activates an audible and/or visual signal approved by the Administrator which alerts the vehicle operator to the need for EGR system maintenance, or if the need for periodic maintenance of the EGR system is overtly signalled to the vehicle operator by an appropriate means, e.g., an indicator light or significantly reduced driveability performance.

(2) The catalytic converter may be serviced only once during the durability service accumulation if failure of the catalytic converter activates an audible and/or visual signal approved by the Administrator which alerts the vehicle operator to the need for catalytic converter maintenance, or if the need for periodic maintenance of the catalytic converter is overtly signalled to the vehicle operator by an appropriate means, e.g., an indicator light or significantly reduced driveability performance.

(g) Certain engine components may require maintenance which, by its nature, cannot be scheduled for periodic



intervals, but which the manufacturer believes will be necessary. For example, piston and cylinder replacement caused by piston seizure which results in the vehicle being inoperative; or in the case of two-stroke engines, decarbonization, the need for which is signalled to the vehicle operator by significantly reduce driveability performance. Such maintenance is designated anticipated maintenance. Anticipated maintenance must be identified by the manufacturer and approved as being appropriate by the Administrator prior to the start of service accumulation. The approximate distance at which the need for anticipated maintenance may arise must be specified in the application for certification.

(h) Complete emission tests (see subpart F) are required, unless waived by the Administrator, before and after any vehicle maintenance which may reasonably be expected to affect emissions.

**§ 86.429-78 Maintenance, unscheduled; test vehicles.**

(a) Any unscheduled engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement on vehicles shall be performed only with the advance approval of the Administrator.

(1) In the case of unscheduled maintenance, such approval will be given if the Administrator:

(i) Has made a preliminary determination that part failure or system malfunction, or the repair of such failure or malfunction, does not render the vehicle unrepresentative of vehicles in use, and does not require direct access to the combustion chamber, except for spark plug, fuel injection component, or removable prechamber removal or replacement; and

(ii) Has made a determination that the need for maintenance or repairs is indicated by an overt indication of malfunction such as persistent misfire, vehicle stall, overheating, fluid leakage, loss of oil pressure, or charge indicator warning.

(2) Emission measurements may not be used as a means of determining the need for unscheduled maintenance under paragraph (a)(1)(i) of this section.

(b) Repairs to vehicle components of test vehicles, other than the engine, emission control system, or fuel system, shall be performed only as a result of part failure, vehicle system malfunction, or with the advance approval of the Administrator.

(c) The Administrator shall be given the opportunity to verify the extent of an overt indication of part failure and/or vehicle malfunction (e.g., misfire, stall), or an activation of an audible and/or visual signal, prior to the performance of any maintenance to which such overt indication or signal is relevant under the provisions of this section.

(d) Equipment, instruments, or tools may not be used to identify malfunctioning, maladjusted, or defective engine components unless the same or equivalent equipment, instruments, or tools will be available at dealerships and other service outlets and

(1) Are used in conjunction with scheduled maintenance on such components, and

(2) Are used subsequent to the identification of a vehicle or engine malfunction, as provided in paragraph (a)(1) of this section for durability or emission data vehicles, or

(3) Unless specifically authorized by the Administrator.

(e) If the Administrator determines that part failure or system malfunction occurrence and/or repair rendered the vehicle unrepresentative of vehicles in use, the vehicle shall not be used as a test vehicle.

(f) Complete emission tests are required, unless waived by the Administrator, before and after any vehicle maintenance which may reasonably be expected to affect emissions.

**§ 86.430-78 Vehicle failure.**

Any test vehicle which incurs major mechanical failure necessitating disassembly of the engine shall not be used as a test vehicle. This prohibition does not apply to failures occurring after the completion of all required tests at the total test distance.

[49 FR 48139, Dec. 10, 1984]

**§ 86.431-78**

**40 CFR Ch. I (7-1-11 Edition)**

**§ 86.431-78 Data submission.**

(a) Data from all tests (including voided tests) performed by a manufacturer with total projected sales in excess of 10,000 vehicles shall be included in the application.

(b) The manufacturer shall furnish to the Administrator explanation for voiding any test. The Administrator will determine if voiding the test was appropriate based upon the explanation given by the manufacturer. If the Administrator determines that voiding the test was not appropriate, the Administrator may require that the data from that test be used in the calculation of the deterioration factor for emissions.

(c) When unscheduled or anticipated maintenance is performed, a complete record of all pertinent maintenance, including the malfunction diagnosis made, the corrective action taken, and the test data obtained shall be included in the application.

(d) A complete record of all maintenance shall be supplied.

(e) Measure CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> as described in this paragraph (e) with each zero kilometer certification test (if one is conducted) and with each test conducted at the applicable minimum test distance as defined in § 86.427-78. Use the analytical equipment and procedures specified in 40 CFR part 1065 as needed to measure N<sub>2</sub>O and CH<sub>4</sub>. Report these values in your application for certification. The requirements of this paragraph (e) apply starting with model year 2011 for CO<sub>2</sub> and 2012 for CH<sub>4</sub>. The requirements of this paragraph (e) related to N<sub>2</sub>O emissions apply for engine families that depend on NO<sub>x</sub> aftertreatment to meet emission standards starting with model year 2013. Small-volume manufacturers (as defined in § 86.410-2006(e)) may omit measurement of N<sub>2</sub>O and CH<sub>4</sub>; other manufacturers may provide appropriate data and/or information and omit measurement of N<sub>2</sub>O and CH<sub>4</sub> as described in 40 CFR 1065.5. Use the same measurement methods as for your other results to report a single value for CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub>. Round the final values as follows:

- (1) Round CO<sub>2</sub> to the nearest 1 g/km.
- (2) Round N<sub>2</sub>O to the nearest 0.001 g/km.

- (3) Round CH<sub>4</sub> to the nearest 0.001 g/km.

[42 FR 1126, Jan. 5, 1977, as amended at 49 FR 48139, Dec. 10, 1984; 74 FR 56373, Oct. 30, 2009]

**§ 86.432-78 Deterioration factor.**

(a) Deterioration factors shall be developed for each test vehicle from the emission test results. A separate factor shall be developed for each pollutant. The applicable data to be used in calculating these factors are:

(1) The results from all valid tests conducted by the manufacturer or Administrator at scheduled test intervals.

(2) The results from tests conducted before and after scheduled maintenance unless specifically excluded by the Administrator.

(3) The results from tests conducted before and after unscheduled maintenance, if approval of the maintenance by the Administrator was conditioned on the data being used in the deterioration factor calculation.

(b) Emission results which are less than 0.10 g/km shall be considered to be 0.10 g/km for purposes of this section.

(c) Test results for each pollutant shall be plotted as a function of the service accumulated at the start of the emission test, rounded to the nearest kilometre. These results shall be correlated to a straight line, fit by the method of least squares.

(d) An exhaust emission deterioration factor will be calculated by dividing the predicted emissions at the useful life distance by the predicted emissions at the total test distance. Predicted emissions are obtained from the correlation developed in paragraph (c) of this section.

$$\text{Factor} = \frac{\text{Predicted total distance emissions}}{\text{Predicted total test distance emissions}}$$

These interpolated and extrapolated values shall be carried out to four places to the right of the decimal point before dividing one by the other to determine the deterioration factor. The results shall be rounded to three places to the right of the decimal point in accordance with ASTM E 29-67.

(e) Deterioration factors computed to be less than 1.000 shall be 1.000.

(f)(1) The manufacturer has the option of applying an outlier test point

## Environmental Protection Agency

## § 86.437-78

procedure to completed durability data within its certification testing program for a given model year.

(2) The outlier procedure will be specified by the Administrator.

(3) For any pollutant, durability-data test points that are identified as outliers shall not be included in the determination of deterioration factors if the manufacturer has elected this option.

(4) The manufacturer shall specify to the Administrator, before the certification of the first engine family for that model year, if it intends to use the outlier procedure.

(5) The manufacturer may not change procedures after the first engine family of the model year is certified.

(6) Where the manufacturer chooses to apply the outlier procedure to a data set containing data which were averaged under § 86.427-78(e), the outlier procedure shall be completed before averaging the data.

[42 FR 1126, Jan. 5, 1977, as amended at 42 FR 56737, Oct. 28, 1977; 49 FR 48139, Dec. 10, 1984]

### § 86.434-78 Testing by the Administrator.

(a) At the conclusion of service accumulation, and after emission tests for deterioration, the Administrator may require confirmatory testing. The Administrator will designate where such testing shall be performed.

(b) The manufacturer may request a retest. The results of the retest will be used to determine compliance.

(c) If the emission results exceed the standard, certification will be denied.

[49 FR 48139, Dec. 10, 1984]

### § 86.435-78 Extrapolated emission values.

(a) If the deterioration factor lines are below the standards between the minimum test distance and the useful life, or if all points used to generate the lines are below the standards, predicted useful life emissions shall be calculated. If not, the manufacturers may elect to withdraw the vehicle or accumulate additional service.

(b) The emission test results of each pollutant obtained from the half life test will be multiplied by the appropriate deterioration factors to determine useful life emissions.

(1) If the useful life emissions are below the standards, certification will be granted.

(2) If any of the useful life emissions exceed the emission standards, the vehicle must (if not withdrawn) accumulate distance to the useful life.

[42 FR 1126, Jan. 5, 1977, as amended at 49 FR 48139, Dec. 10, 1984]

### § 86.436-78 Additional service accumulation.

(a) Additional service up to the useful life will be accumulated under the same conditions as the initial service accumulation.

(b) New deterioration lines will be generated using all applicable test points up to the useful life. The same procedures for determining the original deterioration lines will be used.

(c) [Reserved]

(d) To qualify for certification:

(1) The full life emission test results must be below the standards, and

(2) The deterioration line must be below the standard at the minimum test distance and the useful life, or all points used to generate the line, must be below the standard.

(e) If the vehicle is unable to complete the total distance due to engine mechanical failure, certification will be granted if:

(1) The mechanical failure was anticipated, § 86.428, and

(2) A new deterioration line calculated using the procedure described in § 86.436-78(b) is below the standard at the minimum test distance and at the useful life, and,

(3) The results of the half life emission tests, when adjusted by the new deterioration factors, are below the standards.

[42 FR 1126, Jan. 5, 1977, as amended at 49 FR 48139, Dec. 10, 1984]

### § 86.437-78 Certification.

(a) New motorcycles produced by a manufacturer whose projected sales in the United States is 10,000 or more units (for the model year in which certification is sought) are covered by the following:

(1) The manufacturer shall submit to the Administrator a statement that the test vehicles with respect to which data are submitted have been tested in

accordance with the applicable test procedures, that they meet the requirements of such tests, and that, on the basis of such tests, they conform to the requirements of the regulations in this part. If such statements cannot be made with respect to any vehicle tested, the vehicle shall be identified, and all pertinent test data relating thereto shall be supplied.

(2)(i) If, after a review of the test reports and data submitted by the manufacturer, data derived from any inspection carried out under § 86.441 and any other pertinent data or information, the Administrator determines that a test vehicle(s) meets the requirements of the Act and of this subpart, he will issue a certificate of conformity with respect to such vehicle(s) except in cases covered by § 86.442.

(ii) Such certificate will be issued for such period not to exceed one model year as the Administrator may determine and upon such terms as he may deem necessary to assure that any new motorcycle covered by the certificate will meet the requirements of the act and of this subpart.

(iii) The certificate will cover all vehicles represented by the test vehicle and will certify compliance with no more than one set of applicable standards.

(3)(i) If, after a review of the test reports and data submitted by the manufacturer, data derived from any additional testing conducted pursuant to § 86.427, or information derived from any inspection carried out under § 86.441, or any other pertinent data or information, the Administrator determines that one or more test vehicles of the certification test fleet do not meet applicable standards, he will notify the manufacturer in writing, setting forth the basis for his determination. The manufacturer may request a hearing on the Administrator's determination.

(ii) The manufacturer may, at his option, proceed with any of the following alternatives with respect to any vehicles represented by a test vehicle(s) determined not in compliance with applicable standards:

(A) Request a hearing.

(B) Delete from the application for certification the vehicles represented by the failing test vehicle. (Vehicles so

deleted may be included in a later request for certification under paragraph (b)(2)(iii) of this section.) The Administrator will then select in place of each failing vehicle an alternate vehicle chosen in accordance with selection criteria employed in selecting the vehicle that failed, or

(C) Repair the test vehicle and demonstrate by testing that it meets applicable standards. Another vehicle which is in all material respects the same as the first vehicle, as repaired, shall then be operated and tested in accordance with applicable test procedures.

(iii) If the manufacturer does not request a hearing or present the required data under subparagraph (2) of this paragraph, the Administrator will deny certification.

(b) New motorcycles produced by a manufacturer whose projected sales in the United States is less than 10,000 units (for the model year in which certification is sought) are covered by the following:

(1) The manufacturer shall submit to the Administrator an application for certification containing the following:

(i) A brief description of the vehicles to be covered by the certificate (the manufacturer's sales data book or advertising including specifications will satisfy this requirement for most manufacturers).

(ii) A statement signed by the authorized representative of the manufacturer stating: "The vehicles described herein have been tested in accordance with the provisions of subpart E, part 86, title 40, of the Code of Federal Regulations, and on the basis of these tests are in conformance with that subpart. All of the data and records required by that subpart are on file and are available for inspection by the Administrator. Total sales of vehicles subject to this subpart will be limited to less than 10,000 units."

(iii) The name of 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.

(2) If, after a review of the statement the Administrator determines that the requirements of this subpart have been

## Environmental Protection Agency

## § 86.440-78

met, he will issue a certificate of conformity with respect to the described vehicles except in cases covered by § 86.442.

(3) Such certificate will be issued for such a period not to exceed one model year as the Administrator may determine and upon such terms as he may deem necessary to assure that any new motorcycle covered by the certificate will meet the requirements of the Act and of this subpart.

(4) The certificate will cover all vehicles described by the manufacturer.

(5)(i) If, after a review of the statements and descriptions submitted by the manufacturer, the Administrator determines that the applicable requirements have not been met, he will notify the manufacturer in writing, setting forth the basis for his determination. The manufacturer may request a hearing on the Administrator's determination.

(ii) If the manufacturer does not request a hearing or present the required information the Administrator will deny certification.

[42 FR 1126, Jan. 5, 1977, as amended at 42 FR 56738, Oct. 28, 1977; 46 FR 50496, Oct. 13, 1981; 47 FR 49807, Nov. 2, 1982; 71 FR 51487, Aug. 30, 2006]

### § 86.438-78 Amendments to the application.

(a) The manufacturer shall inform the Administrator by way of amendment to the application of any proposed changes to vehicles in production or additional vehicles to be produced. The Administrator will, if appropriate, select a new test vehicle. Except as provided in § 86.439, no changes may be instituted until approved by the Administrator.

(b) The Administrator may allow reduced testing.

### § 86.439-78 Alternative procedure for notification of additions and changes.

(a)(1) A manufacturer may, in lieu of notifying the Administrator in advance of an addition of a vehicle or a change in a vehicle under § 86.438-78, notify the Administrator concurrently with the addition of a vehicle or the making of a change in a vehicle if the manufacturer determines that following the

change all vehicles affected by the addition or change will still meet the applicable emission standards.

(2) Such notification shall include a full description of the addition or change and any supporting documentation the manufacturer may include to support the manufacturer's determination that the addition or change does not cause noncompliance.

(3) The manufacturer's determination that the addition or change does not cause noncompliance shall be based on an engineering evaluation of the addition or change and/or testing.

(b) [Reserved]

(c)(1) The Administrator may require that additional emission testing be performed to support the manufacturer's original determination submitted in accordance with paragraph (a) of this section.

(2) If additional testing is required, the Administrator shall proceed as in § 86.438-78.

(3) Additional test data, if requested, must be provided within 30 days of the request or the manufacturer must rescind the addition or change immediately.

(4) The Administrator may grant additional time to complete testing.

(5) If based on this additional testing or any other information, the Administrator determines that the vehicles affected by the addition or change do not meet the applicable standards, the Administrator will notify the manufacturer to rescind the addition or change immediately upon receipt of the notification.

(d) Election to produce vehicles under this section will be deemed to be a consent to recall all vehicles which the Administrator determines under § 86.438-78 do not meet applicable standards, and to cause such nonconformity to be remedied at no expense to the owner.

[49 FR 48139, Dec. 10, 1984]

### § 86.440-78 Maintenance of records.

(a) The manufacturer of any motorcycle subject to any of the standards or procedures prescribed in this subpart shall establish, maintain and retain the following adequately organized and indexed records;

(1) *General records.* (i)(A) Identification and description of all certification vehicles for which testing is required under this subpart.

(B) A description of all emission control systems which are installed on or incorporated in each certification vehicle.

(C) A description of all procedures used to test each such certification vehicle.

(ii) A properly completed application, following the format prescribed by the U.S. EPA for the appropriate year of production, fulfills each of the requirements of this paragraph.

(2) *Individual records.* (i) A brief history of each motorcycle used for certification under this subpart including:

(A)(1) In the case where a current production engine is modified for use in a certification vehicle, a description of the process by which the engine was selected and of the modification made.

(2) In the case where the engine for a certification vehicle is not derived from a current production engine, a general description of the build-up of the engine (e.g., experimental heads were cast and machined according to supplied drawings, etc.)

(3) In both cases above, a description of the origin and selection process for the carburetor, fuel system, emission control system components, and exhaust after treatment device shall be included.

(4) The required description shall specify the steps taken to assure that the certification vehicle with respect to its engine, drive train, fuel system, emission control system components, exhaust after treatment device, vehicle mass, or any other device or component that can reasonably be expected to influence exhaust emissions, will be representative of production vehicles, and that either all components and/or vehicle construction processes, component inspection and selection techniques, and assembly techniques employed in constructing such vehicles are reasonably likely to be implemented for production vehicles, or they are as closely analogous as practicable to planned construction and assembly processes.

(B) A complete record of all emission tests performed (except tests per-

formed by EPA directly) including test results, the date and purpose of each test, and the distance accumulated on the vehicle.

(C) The date of each service accumulation run, listing the distance accumulated.

(D) [Reserved]

(E) A record and description of all maintenance and other servicing performed, giving the date of the maintenance or service and the reason for it.

(F) A record and description of each test performed to diagnose engine or emissions control system performance, giving the date and time of the test and the reason for it.

(G) [Reserved]

(H) A brief description of any significant events affecting the vehicle during any time in the period covered by the history, not described by an entry under one of the previous headings, including such extraordinary events as vehicle accidents or dynamometer run-away.

(ii) Each such history shall be started on the date that the first of any of the selection or build-up activities in paragraph (a)(2)(i)(A) of this section occurred with respect to the certification vehicle, shall be updated each time the operational status of the vehicle changes or additional work is performed on it, and shall be kept in a designated location.

(3) All records, other than routine emission test records, required to be maintained under this subpart shall be retained by the manufacturer for a period of six (6) years after the issuance of all certificates of conformity to which they relate. Routine emission test records shall be retained by the manufacturer for a period of one (1) year after issuance of all certificates of conformity to which they relate. Records may be retained as hard copy or reduced to microfilm, punch cards, etc., depending on the record retention procedures of the manufacturer: *Provided* That, in every case, all the information contained in the hard copy shall be retained.

[42 FR 1126, Jan. 5, 1977, as amended at 42 FR 56738, Oct. 28, 1977; 49 FR 48140, Dec. 10, 1984]

## Environmental Protection Agency

## § 86.441-78

### § 86.441-78 Right of entry.

(a) Any manufacturer who has applied for certification of a new motorcycle subject to certification tests under this subpart shall admit or cause to be admitted any EPA Enforcement Officer during operating hours on presentation of any credentials to any of the following:

(1) Any facility where any such tests or any procedures or activities connected with such tests are or were performed.

(2) Any facility where any new motorcycle which is being, was or is to be tested is present.

(3) Any facility where any construction process or assembly process used in the modification or build-up of such a vehicle into a certification vehicle is taking place or has taken place.

(4) Any facility where any record or other document relating to any of the above is located.

(b) Upon admission to any facility referred to in paragraph (c)(1) of this section, any EPA Enforcement Officer shall be allowed:

(1) To inspect and monitor any part or aspect of such procedures, activities, and testing facilities, including, but not limited to, monitoring vehicle preconditioning, emissions tests and service accumulation, maintenance, and vehicle soak and storage procedures; and to verify correlation or calibration of test equipment;

(2) To inspect and make copies of any such records, designs, or other documents; and

(3) To inspect and/or photograph any part or aspect of any such certification vehicle and any components to be used in the construction thereof.

(c) In order to allow the Administrator to determine whether or not production motorcycles conform in all material respects to the design specifications which applied to those vehicles described in the application for certification for which a certificate of conformity has been issued and to standards prescribed under section 202 of the Act, any manufacturer shall admit any EPA Enforcement Officer on presentation of credentials to both:

(1) Any facility where any document design, or procedure relating to the translation of the design and construc-

tion of engines and emission related components described in the application for certification or used for certification testing into production vehicles is located or carried on; and

(2) Any facility where any motorcycles to be introduced into commerce are manufactured or assembled.

(d) On admission to any such facility referred to in paragraph (c)(3) of this section, any EPA Enforcement Officer shall be allowed:

(1) To inspect and monitor any aspects of such manufacture or assembly and other procedures;

(2) To inspect and make copies of any such records, documents or designs; and

(3) To inspect and photograph any part or aspect of any such new motorcycles and any component used in the assembly thereof that are reasonably related to the purpose of his entry.

(e) Any EPA Enforcement Officer shall be furnished by those in charge of a facility being inspected with such reasonable assistance as he may request to help him discharge any function listed in this paragraph. Each applicant for or recipient of certification is required to cause those in charge of a facility operated for its benefit to furnish such reasonable assistance without charge to EPA whether or not the applicant controls the facility.

(f) The duty to admit or cause to be admitted any EPA Enforcement Officer applies whether or not the applicant owns or controls the facility in question and applies both to domestic and to foreign manufacturers and facilities. EPA will not attempt to make any inspections which it has been informed that local law forbids. However, if local law makes it impossible to do what is necessary to insure the accuracy of data generated at a facility, no informed judgment that a vehicle or engine is certifiable or is covered by a certificate can properly be based on that data. It is the responsibility of the manufacturer to locate its testing and manufacturing facilities in jurisdictions where this situation will not arise.

(g) For purposes of this section:

(1) *Presentation of credentials* shall mean display of the document designating a person as an EPA Enforcement Officer.

(2) Where vehicle, component, or engine storage areas or facilities are concerned, *operating hours* shall mean all times during which personnel other than custodial personnel are at work in the vicinity of the area or facility and have access to it.

(3) Where facilities or areas other than those covered by paragraph (g)(2) of this section are concerned, *operating hours* shall mean all times during which an assembly line is in operation or all times during which testing, maintenance, service accumulation, production or compilation of records, or any other procedure or activity related to certification testing, to translation of designs from the test stage to the production stage, or to vehicle manufacture or assembly is being carried out in a facility.

(4) *Reasonable assistance* includes, but is not limited to, clerical, copying, interpretation and translation services, the making available on request of personnel of the facility being inspected during their working hours to inform the EPA Enforcement Officer of how the facility operates and to answer his questions, and the performance on request of emissions tests on any vehicle which is being, has been, or will be used for certification testing. Such tests shall be nondestructive, but may require appropriate service accumulation. A manufacturer may be compelled to cause the personal appearance of any employee at such a facility before an EPA Enforcement Officer by written request for his appearance, signed by the Assistant Administrator for Enforcement, served on the manufacturer. Any such employee who has been instructed by the manufacturer to appear will be entitled to be accompanied, represented, and advised by counsel. No counsel who accompanies, represents, or advises an employee compelled to appear may accompany, represent, or advise any other person in the investigation.

(5) Any entry without 24 hours prior written or oral notification to the affected manufacturer shall be author-

ized in writing by the Assistant Administrator for Enforcement.

**§ 86.442-78 Denial, revocation, or suspension of certification.**

(a) Notwithstanding the fact that any certification vehicle(s) may comply with other provisions of this subpart, the Administrator may withhold or deny the issuance of a certificate of conformity (or suspend or revoke any such certificate which has been issued) with respect to any such vehicle(s) if:

(1) The manufacturer submits false or incomplete information in his application for certification thereof; or

(2) The manufacturer renders inaccurate or invalid any test data which he submits pertaining thereto or otherwise circumvents the intent of the Act or of this subpart with respect to such vehicle; or

(3) Any EPA Enforcement Officer is denied access on the terms specified in § 86.441 to any facility or portion thereof which contains any of the following:

- (i) The vehicle, or
- (ii) Any components used or considered for use in its modification or build-up into a certification vehicle, or
- (iii) Any production vehicle which is or will be claimed by the manufacturer to be covered by the certificate, or
- (iv) Any step in the construction of a vehicle described in paragraph (c) of this section, or
- (v) Any records, documents, reports, or histories required by this part to be kept concerning any of the above.

(4) Any EPA Enforcement Officer is denied "reasonable assistance" (as defined in § 86.444) in examining any of the items listed in paragraph (a)(1)(iii) of this section.

(b) The sanctions of withholding, denying, revoking, or suspending of a certificate may be imposed for the reasons in paragraph (a) of this section only when the infraction is substantial.

(c) In any case in which a manufacturer knowingly submits false or inaccurate information, or knowingly renders inaccurate or invalid any test data, or commits any fraudulent acts and such acts contribute substantially to the Administrator's decision to issue a certificate of conformity, the Administrator may deem such certificate void ab initio.



## Environmental Protection Agency

## § 86.444-78

(d) In any case in which certification of a vehicle is proposed to be withheld, denied, revoked, or suspended under paragraph (a) (3) or (4) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.441 in fact occurred, the manufacturer, if he wishes to contend that, even though the violation occurred, the vehicle in question was not involved in the violation to a degree that would warrant withholding, denial, revocation, or suspension of certification under either paragraph (a) (3) or (4) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(e) Any revocation or suspension of certification under paragraph (a) of this section shall:

(1) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.444 hereof.

(2) Extend no further than to forbid the introduction into commerce of vehicles previously covered by the certification which are still in the hands of the manufacturer, except in cases of such fraud or other misconduct as makes the certification invalid ab initio.

(f) The manufacturer may request in the form and manner specified in § 86.443 that any determination made by the Administrator under paragraph (a) of this section to withhold or deny certification be reviewed in a hearing conducted in accordance with § 86.444. If the Administrator finds, after a review of the request and supporting data, that the request raises a substantial factual issue, he will grant the request with respect to such issue.

[42 FR 1126, Jan. 5, 1977, as amended at 42 FR 56738, Oct. 28, 1977]

### § 86.443-78 Request for hearing.

Within 30 days following receipt of notification that an application has been rejected or that certification has been denied, the manufacturer may request a hearing on the Administrator's determination. The request shall be in writing, signed by an authorized representative of the manufacturer and shall include a statement specifying the manufacturer's objections to the

Administrator's determinations, and data in support of such objections. If, after the review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, he shall provide the manufacturer a hearing with respect to such issue.

### § 86.444-78 Hearings on certification.

(a)(1) After granting a request for a hearing under § 86.443 the Administrator will designate a Presiding Officer for the hearing.

(2) The General Counsel will represent the Environmental Protection Agency in any hearing under this section.

(3) If a time and place for the hearing have not been fixed by the Administrator under § 86.443, the hearing shall be held as soon as practicable at a time and place fixed by the Administrator or by the Presiding Officer.

(4) In the case of any hearing requested pursuant to § 86.437, the Administrator may in his discretion direct that all argument and presentation of evidence be concluded within such fixed period not less than 30 days as he may establish from the date that the first written offer of a hearing is made to the manufacturer. To expedite proceedings, the Administrator may direct that the decision of the Presiding Officer (who may, but need not be the Administrator himself) shall be the final EPA decision.

(b)(1) Upon his appointment pursuant to paragraph (a) of this section, the Presiding Officer will establish a hearing file. The file shall consist of the notice issue by the Administrator under a hearing and the supporting data submitted therewith and all documents relating to the request for certification and all documents submitted therewith, and correspondence and other data material to the hearing.

(2) The appeal file will be available for inspection by the applicant at the office of the Presiding Officer.

(c) An applicant may appear in person, or may be represented by counsel or by any other duly authorized representative.

(d)(1) The Presiding Officer upon the request of any party, or in his discretion, may arrange for a prehearing conference at a time and place specified by him to consider the following:

- (i) Simplification of the issues;
- (ii) Stipulations, admissions of fact, and the introduction of documents;
- (iii) Limitation of the number of expert witnesses;
- (iv) Possibility of agreement disposing of all or any of the issues in dispute;
- (v) Such other matters as may aid in the disposition of the hearing, including such additional tests as may be agreed upon by the parties.

(2) The results of the conference shall be reduced to writing by the Presiding Officer and made part of the record.

(e)(1) Hearings shall be conducted by the Presiding Officer in an informal but orderly and expeditious manner. The parties may offer oral or written evidence, subject to the exclusion by the Presiding Officer of irrelevant, immaterial, and repetitious evidence.

(2) Witnesses will not be required to testify under oath. However, the Presiding Officer shall call to the attention of witnesses that their statements may be subject to the provisions of title 18 U.S.C. 1001 which imposes penalties for knowingly making false statements or representations, or using false documents in any matter within the jurisdiction of any department or agency of the United States.

(3) Any witness may be examined or cross-examined by the Presiding Officer, the parties, or their representatives.

(4) Hearings shall be reported verbatim. Copies of transcripts of proceedings may be purchased by the applicant from the reporter.

(5) All written statements, charts, tabulations, and similar data offered in evidence at the hearing shall, upon a showing satisfactory to the Presiding Officer of their authenticity, relevancy, and materiality, be received in evidence and shall constitute a part of the record.

(6) Oral argument may be permitted in the discretion of the Presiding Officer and shall be reported as part of the record unless otherwise ordered by him.

(f)(1) The Presiding Officer shall make an initial decision which shall include written findings and conclusions and the reasons or basis therefore on all the material issues of fact, law, or discretion presented on the record. The findings, conclusions, and written decision shall be provided to the parties and made a part of the record. The initial decision shall become the decision of the Administrator without further proceedings unless there is an appeal to the Administrator or motion for review by the Administrator within 20 days of the date the initial decision was filed.

(2) On appeal from or review of the initial decision the Administrator shall have all the powers which he would have in making the initial decision including the discretion to require or allow briefs, oral argument, the taking of additional evidence or the remanding to the Presiding Officer for additional proceedings. The decision by the Administrator shall include written findings and conclusions and the reasons or basis therefore on all the material issues of fact, law, or discretion presented on the appeal or considered in the review.

**§ 86.445-2006 What temporary provisions address hardship due to unusual circumstances?**

(a) After considering the circumstances, the Director of the Office of Transportation and Air Quality may permit you to introduce into commerce highway motorcycles that do not comply with emission standards if all the following conditions and requirements apply:

(1) Unusual circumstances that are clearly outside your control and that could not have been avoided with reasonable discretion prevent you from meeting requirements from this chapter.

(2) You exercised prudent planning and were not able to avoid the violation; you have taken all reasonable steps to minimize the extent of the nonconformity.

(3) Not having the exemption will jeopardize the solvency of your company.

(4) No other allowances are available under the regulations of this part to

## Environmental Protection Agency

## § 86.446–2006

avoid the impending violation, excluding those in § 86.446.

(b) To apply for an exemption, you must send the Designated Compliance Officer a written request as soon as possible before you are in violation. In your request, show that you meet all the conditions and requirements in paragraph (a) of this section.

(c) Include in your request a plan showing how you will meet all the applicable requirements as quickly as possible.

(d) You must give us other relevant information if we ask for it.

(e) We may include reasonable additional conditions on an approval granted under this section, including provisions to recover or otherwise address the lost environmental benefit or paying fees to offset any economic gain resulting from the exemption. For example, in the case of multiple tiers of emission standards, we may require that you meet the less stringent standards.

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

(1) The label heading “EMISSION CONTROL INFORMATION”.

(2) Your corporate name and trademark.

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

(4) The statement “THIS MOTORCYCLE IS EXEMPT UNDER 40 CFR 86.445–2006 FROM EMISSION STANDARDS AND RELATED REQUIREMENTS.”.

[69 FR 2437, Jan. 15, 2004]

### **§ 86.446–2006 What are the provisions for extending compliance deadlines for small-volume manufacturers under hardship?**

(a) After considering the circumstances, the Director of the Office of Transportation and Air Quality may extend the compliance deadline for you to meet new or revised emission standards, as long as you meet all the conditions and requirements in this section.

(b) To be eligible for this exemption, you must qualify as a small-volume manufacturer under § 86.410–2006(e).

(c) To apply for an extension, you must send the Designated Compliance Officer a written request. In your request, show that all the following conditions and requirements apply:

(1) You have taken all possible business, technical, and economic steps to comply.

(i) In the case of importers, show that you attempted to find a manufacturer capable of supplying complying products as soon as you became aware of the applicable requirements, but were unable to do so.

(ii) For all other manufacturers, show that the burden of compliance costs prevents you from meeting the requirements of this chapter.

(2) Not having the exemption will jeopardize the solvency of your company.

(3) No other allowances are available under the regulations in this part to avoid the impending violation, excluding those in § 86.445.

(d) In describing the steps you have taken to comply under paragraph (c)(1) of this section, include at least the following information:

(1) Describe your business plan, showing the range of projects active or under consideration.

(2) Describe your current and projected financial standing, with and without the burden of complying fully with the regulations in this part.

(3) Describe your efforts to raise capital to comply with regulations in this part (this may not apply for importers).

(4) Identify the engineering and technical steps you have taken or plan to take to comply with the regulations in this part.

(5) Identify the level of compliance you can achieve. For example, you may be able to produce engines that meet a somewhat less stringent emission standard than the regulations require.

(e) Include in your request a plan showing how you will meet all the applicable requirements as quickly as possible.

(f) You must give us other relevant information if we ask for it.

(g) An authorized representative of your company must sign the request and include the statement: “All the information in this request is true and accurate, to the best of my knowledge.”

(h) Send your request for this extension at least nine months before new standards apply. Do not send your request before the regulations in question apply to other manufacturers.

(i) We may include reasonable requirements on an approval granted under this section, including provisions to recover or otherwise address the lost environmental benefit. For example, we may require that you meet a less stringent emission standard or buy and use available emission credits.

(j) We will approve extensions of up to one year. We may review and revise an extension as reasonable under the circumstances.

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

(1) The label heading “EMISSION CONTROL INFORMATION”.

(2) Your corporate name and trademark.

(3) Engine displacement (in liters) and model year of the motorcycle or whom to contact for further information.

(4) The statement “THIS MOTORCYCLE IS EXEMPT UNDER 40 CFR 86.446 FROM EMISSION STANDARDS AND RELATED REQUIREMENTS.”.

[69 FR 2437, Jan. 15, 2004]

**§ 86.447–2006 What provisions apply to motorcycle engines below 50 cc that are certified under the Small SI program or the Recreational-vehicle program?**

(a) *General provisions.* If you are an engine manufacturer, this section allows you to introduce into commerce a new highway motorcycle (that is, a motorcycle that is a motor vehicle) if it has an engine below 50 cc that is already certified to the requirements that apply to engines or vehicles under 40 CFR part 90 or 1051 for the appropriate model year. If you comply with all the provisions of this section, we

consider the certificate issued under 40 CFR part 90 or 1051 for each engine or vehicle to also be a valid certificate of conformity under this part 86 for its model year, without a separate application for certification under the requirements of this part 86. See § 86.448–2006 for similar provisions that apply to vehicles that are certified to chassis-based standards under 40 CFR part 1051.

(b) *Vehicle-manufacturer provisions.* If you are not an engine manufacturer, you may produce highway motorcycles using nonroad engines below 50 cc under this section as long as you meet all the requirements and conditions specified in paragraph (d) of this section. If you modify the nonroad engine in any of the ways described in paragraph (d)(2) of this section for installation in a highway motorcycle, we will consider you a manufacturer of a new highway motorcycle. Such engine modifications prevent you from using the provisions of this section.

(c) *Liability.* Engines for which you meet the requirements of this section, and vehicles containing these engines, are exempt from all the requirements and prohibitions of this part, except for those specified in this section. Engines and vehicles exempted under this section must meet all the applicable requirements from 40 CFR part 90 or 1051. This applies to engine manufacturers, vehicle manufacturers who use these engines, and all other persons as if these engines were used in recreational vehicles or other nonroad applications. The prohibited acts of 42 U.S.C. 7522 apply to these new highway motorcycles; however, we consider the certificate issued under 40 CFR part 90 or 1051 for each engine to also be a valid certificate of conformity under this part 86 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, 90, or 1068.

(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 highway motorcycle is eligible for an exemption under this section:

## Environmental Protection Agency

## § 86.447-2006

(1) Your engine must be below 50 cc and must be covered by a valid certificate of conformity for Class II engines issued under 40 CFR part 90 or for recreational vehicles under 40 CFR part 1051.

(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, if applicable. 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.

(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 highway motorcycles. This includes engines used in any application, without regard to which company manufactures the vehicle or equipment. In addition, if you manufacture highway motorcycles, you must show that fewer than 50 percent of the engine family's total sales in the United States are highway motorcycles. Show that you meet the engine-sales criterion 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 the engine sales volumes based on its sales information.

(4) You must ensure that the engine has the label we require under 40 CFR part 90 or 1051.

(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: "HIGHWAY MOTORCYCLE 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 HIGHWAY USE WITHOUT AFFECTING ITS EMISSION CONTROLS."

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

(6) 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 without making any changes that could increase its certified emission levels, as described in 40 CFR 86.447-2006."

(e) *Failure to comply.* If your highway motorcycles 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 86 and the certificate issued under 40 CFR part 90 or 1051 will not be deemed to also be a certificate issued under this part 86. Introducing these engines into commerce without a valid exemption or certificate of conformity under this part violates the prohibitions in 40 CFR part 85.

(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 86. These engines or vehicles may generate credits under the ABT provisions in 40 CFR part 90 or 1051. These engines or vehicles must use emission credits under 40 CFR part 90 or 1051 if they are certified to an FEL that exceeds an applicable standard.

[70 FR 40435, July 13, 2005]

**§ 86.448–2006 What provisions apply to vehicles certified under the Recreational-vehicle program?**

(a) *General provisions.* If you are a highway-motorcycle manufacturer, this section allows you to introduce into commerce a new highway motorcycle with an engine below 50 cc if it is already certified to the requirements that apply to recreational vehicles under 40 CFR parts 1051. A highway motorcycle is a motorcycle that is a motor vehicle. If you comply with all of the provisions of this section, we consider the certificate issued under 40 CFR part 1051 for each recreational vehicle to also be a valid certificate of conformity for the motor vehicle under this part 86 for its model year, without a separate application for certification under the requirements of this part 86. See § 86.447–2006 for similar provisions that apply to nonroad engines produced for highway motorcycles.

(b) *Nonrecreational-vehicle provisions.* If you are not a recreational-vehicle manufacturer, you may produce highway motorcycles from recreational vehicles with engines below 50 cc under this section as long as you meet all the requirements and conditions specified in paragraph (d) of this section. If you modify the recreational vehicle or its engine in any of the ways described in paragraph (d)(2) of this section for installation in a highway motorcycle, we will consider you a manufacturer of a new highway motorcycle. Such modifications prevent you from using the provisions of this section.

(c) *Liability.* 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 and vehicles exempted under this section must meet all the applicable requirements from 40 CFR part 1051. This applies to engine manufacturers, vehicle manufacturers, and all other persons as if the highway motorcycles were recreational vehicles. The prohibited acts of 42 U.S.C. 7522 apply to these new highway motorcycles; however, we consider the certificate issued under 40 CFR part 1051 for each recreational vehicle to also be a valid certificate of conformity for the highway motorcycle under this part 86 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 recreational-vehicle manufacturer and meet all the following criteria and requirements regarding your new highway motorcycle and its engine, the highway motorcycle is eligible for an exemption under this section:

(1) Your motorcycle must have an engine below 50 cc and it must be covered by a valid certificate of conformity as a recreational vehicle issued under 40 CFR part 1051.

(2) You must not make any changes to the certified recreational 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.

(3) You must show that fewer than 50 percent of the engine family's total sales in the United States are used in highway motorcycles. This includes highway and off-highway motorcycles, without regard to which company completes the manufacturing of the highway motorcycle. 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.

**Environmental Protection Agency**

**§ 86.449**

(4) The highway motorcycle must have the vehicle emission control information we require under 40 CFR part 1051.

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

(i) Include the heading: "HIGHWAY MOTORCYCLE 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 HIGHWAY USE WITHOUT AFFECTING ITS EMISSION CONTROLS."

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

(6) 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 highway motorcycle models you expect to produce under this exemption in the coming year.

(iii) State: "We produced each listed highway motorcycle without making any changes that could increase its certified emission levels, as described in 40 CFR 86.448-2006."

(e) *Failure to comply.* If your highway motorcycles 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 86 and 40 CFR part 85, and the certificate issued under 40 CFR part 1051 will not be deemed to also be a certificate issued under this part 86. Intro-

ducing these motorcycles into commerce without a valid exemption or certificate of conformity under this part violates the prohibitions in 40 CFR part 85.

(f) *Data submission.* We may require you to send us emission test data on the duty cycle for Class I motorcycles.

(g) *Participation in averaging, banking and trading.* Recreational vehicles adapted for use as highway motorcycles under this section may not generate or use emission credits under this part 86. These engines may generate credits under the ABT provisions in 40 CFR part 1051. These engines must use emission credits under 40 CFR part 1051 if they are certified to an FEL that exceeds an applicable standard.

[70 FR 40436, July 13, 2005]

**§ 86.449 Averaging provisions.**

(a) This section describes how and when averaging may be used to show compliance with applicable HC+NO<sub>x</sub> emission standards. Emission credits may not be banked for use in later model years, except as specified in paragraph (j) of this section.

(1) Compliance with the Class I and Class II HC+NO<sub>x</sub> standards set forth in §86.410-2006 (f) may be demonstrated using the averaging provisions of this section. To do this you must show that your average emission levels are at or below the applicable standards in §86.410-2006.

(2) Compliance with the Class III HC+NO<sub>x</sub> standards set forth in §86.410-2006 (a)(2) may be demonstrated using the averaging provisions of this section. To do this you must show that your average emission levels are at or below the applicable standards in §86.410-2006.

(3) Family emission limits (FELs) may not exceed the following caps:

| Class               | Tier         | Model year           | FEL cap (g/km)     |
|---------------------|--------------|----------------------|--------------------|
|                     |              |                      | HC+NO <sub>x</sub> |
| Class I or II ..... | Tier 1 ..... | 2006 and later ..... | 5.0                |
| Class III .....     | Tier 1 ..... | 2006-2009 .....      | 5.0                |
|                     | Tier 2 ..... | 2010 and later ..... | 2.5                |

(b) Do not include any exported vehicles in the certification averaging program. Include only motorcycles certified under this subpart and intended for sale in the United States.

(c) To use the averaging program, do the following things:

- (1) Certify each vehicle to a family emission limit.
- (2) Calculate a preliminary average emission level according to paragraph (d) of this section using projected production volumes for your application for certification.
- (3) After the end of your model year, calculate a final average emission level

according to paragraph (d) of this section for each averaging set for which you manufacture or import motorcycles.

(d) Calculate your average emission level for each averaging set for each model year according to the following equation and round it to the nearest tenth of a g/km. Use consistent units throughout the calculation. The averaging sets are defined in paragraph (k) of this section.

(1) 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<sub>i</sub> = The FEL to which the engine family is certified.

UL<sub>i</sub> = The useful life of the engine family.

Production<sub>i</sub> = The number of vehicles in the engine family.

(2) Use production projections for initial certification, and actual production volumes to determine compliance at the end of the model year.

(e)(1) Maintain and keep five types of properly organized and indexed records for each group and for each emission family:

- (i) Model year and EPA emission family.
- (ii) FEL.
- (iii) Useful life.
- (iv) Projected production volume for the model year.
- (v) Actual production volume for the model year.

(2) Keep paper records of this information for three years from the due date for the end-of-year report. You may use any additional storage formats or media if you like.

(3) Follow paragraphs (f) through (i) of this section to send us the information you must keep.

(4) We may ask you to keep or send other information necessary to implement this subpart.

(f) Include the following information in your application for certification:

(1) A statement that, to the best of your belief, you will not have a negative credit balance for any motorcycle when all credits are calculated. 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 pursuant to paragraph (j) of this section to offset the deficit.

(2) Detailed calculations of projected emission credits (zero, positive, or negative) based on production projections. If you project a credit deficit, state the source of credits needed to offset the credit deficit.

(g) At the end of each model year, send an end-of-year report.

(1) Make sure your report includes the following things:

(i) Calculate in detail your average emission level and any emission credits based on actual production volumes.

(ii) If your average emission level is above the allowable average standard, state the source of credits needed to offset the credit deficit.

(2) Base your production volumes on the point of first retail sale. This point is called the final product-purchase location.

(3) Send end-of-year reports to the Designated Compliance Officer within 120 days of the end of the model year.



**Environmental Protection Agency**

**§ 86.449**

If you send reports later, EPA may void your certificate ab initio.

(4) If you generate credits for banking pursuant to paragraph (j) of this section and you do not send your end-of-year reports within 120 days after the end of the model year, you may not

use the credits until we receive and review your reports. You may not use projected credits pending our review.

(5) You may correct errors discovered in your end-of-year report, including errors in calculating credits according to the following table:

| If . . .   | And if . . .   | Then we . . .                            |
|--|--|--|
| (i) Our review discovers an error in your end-of-year report that increases your credit balance. | The discovery occurs within 180 days of receipt.       | Restore the credits for your use.        |
| (ii) You discover an error in your report that increases your credit balance.                    | The discovery occurs within 180 days of receipt.       | Restore the credits for your use.        |
| (iii) We or you discover an error in your report that increases your credit balance.             | The discovery occurs more than 180 days after receipt. | Do not restore the credits for your use. |
| (iv) We discover an error in your report that reduces your credit balance.                       | At any time after receipt .....                        | Reduce your credit balance.              |

(h) Include in each report a statement certifying the accuracy and authenticity of its contents.

(i) We may void a certificate of conformity for any emission family if you do not keep the records this section requires or give us the information when we ask for it.

(j) You may include Class III motorcycles that you certify with HC+NO<sub>x</sub> emissions below 0.8 g/km in the following optional early banking program:

(1) To include a Class III motorcycle in the early banking program, assign it

an emission rate of 0.8 g/km when calculating your average emission level for compliance with the Tier 1 standards.

(2)(i) Calculate bankable credits from the following equation:

$$\text{Bonus credit} = Y \times [(0.8 \text{ g/km} - \text{Certified emission level})] \times [(\text{Production volume of engine family}) \times (\text{Useful life})]$$

(ii) The value of Y is defined by the model year and emission level, as shown in the following table:

| Model year              | Multiplier (Y) for use in MY 2010 or later corporate averaging                                      |  |
|-------------------------|---|--|
|                         | If your certified emission level is less than 0.8 g/km, but greater than 0.4 g/km, then Y = . . . . | If your certified emission level is less than 0.4 g/km, then Y = . . . . |
| 2003 through 2006 ..... | 1.500   | 3.000  |
| 2007 .....              | 1.375   | 2.500  |
| 2008 .....              | 1.250   | 2.000  |
| 2009 .....              | 1.125   | 1.500  |

(3) Credits banked under this paragraph (j) may be used for compliance with any 2010 or later model year standards as follows:

(i) If your average emission level is above the average standard, calculate your credit deficit according to the following equation, rounding to the nearest tenth of a gram:

$$\text{Deficit} = (\text{Emission Level} - \text{Average Standard}) \times (\text{Total Annual Production}) \times (\text{Useful Life})$$

(ii) Credit deficits may be offset using banked credits.

(k) Credits may not be exchanged across averaging sets except as explicitly allowed by this paragraph (k).

- (1) There are two averaging sets:
  - (i) Class I and Class II motorcycles certified to HC+NO<sub>x</sub> standards.
  - (ii) Class III motorcycles.

(2) Where a manufacturer's average HC+NO<sub>x</sub> emission level for Class III motorcycles (as calculated under paragraph (d)(1) of this section) is below the

**§ 86.501-78**

applicable standard, the manufacturer may generate credits that may be used show compliance with HC+NO<sub>x</sub> standards for Class I and Class II motorcycles during the same model year. Use the following equations to calculate credits and credit deficits for each class or subclass:

$$\text{Credit} = (\text{Average Standard} - \text{Emission Level}) \times (\text{Total Annual Production}) \times (\text{Useful Life})$$

$$\text{Deficit} = (\text{Emission Level} - \text{Average Standard}) \times (\text{Total Annual Production}) \times (\text{Useful Life})$$

(1) Manufacturers participating in the averaging program of this section may modify FELs during the model year as specified in this paragraph (1).

(1) Upon notifying EPA, manufacturers may raise the FEL for an engine family and begin labeling motorcycles with the new FEL.

(2) Manufacturers may ask to lower FELs based on test data of production vehicles showing that the motorcycles in the engine family have emissions below the new FEL. Manufacturers must test the motorcycles according to 40 CFR part 1051, subpart D. Manufacturers may not begin labeling motorcycles with the new FEL until they have received EPA approval to do so.

(3) Manufacturers may not change the FEL of any motorcycle that has been placed into service or that is no longer in their possession.

[69 FR 2439, Jan. 15, 2004]

**Subpart F—Emission Regulations for 1978 and Later New Motorcycles; Test Procedures**

SOURCE: 42 FR 1137, Jan. 5, 1977, unless otherwise noted.

**§ 86.501-78 Applicability.**

(a) This subpart contains the motorcycle test procedures specified in subpart E.

(b) Provisions of this subpart apply to tests performed by both the Administrator and motor vehicle manufacturers.

**§ 86.502-78 Definitions.**

(a) The definitions in § 86.402-78 apply to this subpart.

**40 CFR Ch. I (7-1-11 Edition)**

(b) [Reserved]

**§ 86.503-78 Abbreviations.**

(a) The abbreviations in § 86.403-78 apply to this subpart.

(b) [Reserved]

**§ 86.504-78 Section numbering.**

(a) The section numbering system described in § 86.404-78 is used in this subpart.

(b) [Reserved]

**§ 86.505-78 Introduction; structure of subpart.**

(a) This subpart describes the equipment required and the procedures to follow in order to perform exhaust emission tests on motorcycles. Subpart E sets forth the testing requirements and test intervals necessary to comply with EPA certification procedures.

(b) Three topics are addressed in this subpart. Sections 86.508 through 86.515 set forth specifications and equipment requirements; §§ 86.516 through 86.526 discuss calibration methods and frequency; test procedures and data requirements are listed (in approximate order of performance) in §§ 86.527 through 86.544.

**§ 86.505-2004 Introduction; structure of subpart.**

(a) This subpart describes the equipment required and the procedures to follow in order to perform exhaust emission tests on motorcycles. Subpart E sets forth the testing requirements and test intervals necessary to comply with EPA certification procedures. Alternate equipment, procedures, and calculation methods may be used if shown to yield equivalent or superior results, and if approved in advance by the Administrator.

(b) Three topics are addressed in this subpart. Sections 86.508 through 86.515 set forth specifications and equipment requirements; §§ 86.516 through 86.526 discuss calibration methods and frequency; test procedures and data requirements are listed (in approximate order of performance) in §§ 86.527 through 86.544.

(c) For diesel-fueled motorcycles, use the sampling and analytical procedures and the test fuel described in subpart B of this part for diesel-fueled light-duty