State of California AIR RESOURCES BOARD

CALIFORNIA EXHAUST EMISSIONS STANDARDS AND TEST PROCEDURES FOR 1995 AND LATER OFF-HIGHWAY RECREATIONAL VEHICLES AND ENGINES

Adopted: November 23, 1994 Amended: September 1, 1999

NOTE:

This document incorporates by reference, with noted modifications, sections of Subparts E and F, Part 86, Title 40, Code of Federal Regulations. California provisions which replace specific federal provisions are denoted by the words "DELETE" for the federal language and "REPLACE WITH" or "ADD" for the new California language. The symbols "****" and "..." mean that the federal text that immediately follows the symbols is unchanged and incorporated by reference into the California Standards and Test Procedures. Sections of the federal regulations which are not listed are not part of the California Standards and Test Procedures.

This Document is printed in a style to indicate changes from the existing California provisions. All existing language is indicated by plain type. All additions to language are indicated by <u>underline</u>. All deletions to language are indicated by <u>strikeout</u>.

CALIFORNIA EXHAUST EMISSIONS STANDARDS AND TEST PROCEDURES FOR 1995 AND LATER OFF-HIGHWAY RECREATIONAL VEHICLES AND ENGINES

The following provisions of Subpart E and F, Part 86, Title 40, Code of Federal Regulations, as adopted or amended by the U. S. Environmental Protection Agency on the date listed are adopted and incorporated herein by this reference as the California Exhaust Emission Standards and Test Procedures for 1995 and Later Off-Highway recreational vehicles and engines, except as altered or replaced by the provisions set forth below.

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

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

86.401-78 General Applicability. 42 FR 1126, Jan. 5, 1977.

DELETE

86.401-90 General Applicability. 54 FR 14539, Apr. 11, 1989.

(a) DELETE,

REPLACE WITH:

- (a) This subpart applies to all 1997 and later model year off-road motorcycles, all-terrain vehicles, golf carts, and engines used in such vehicles produced on or after January 1, 1997.
- (b) DELETE
- (c) DELETE

86.402-78 Definitions. 49 FR 48138, Dec. 10, 1984

* * * *

REPLACE WITH:

"Administrator" means the Executive Officer of the Air Resources Board, or their designee.

* * * *

ADD:

"All-Terrain Vehicle" means any motorized off-highway vehicle 50 inches (1270 mm) or less in overall width, with an unladen dry weight of 600 pounds (275 kg) or less, designed to travel on four low pressure tires, having a seat designed to be straddled by the operator and handlebars for steering

[&]quot;Administrator" DELETE,

control, and intended for use by a single operator and no passengers. The vehicle is designed to carry not more than 350 pounds (160 kg) payload, excluding the operator, and is powered by an internal combustion engine. Width and unladen weight shall be exclusive of accessories and optional equipment. A go-kart, golf cart or specialty vehicle is not, for purposes of this regulation, to be classified as an all-terrain vehicle. An all-terrain vehicle that is not used exclusively in competition/racing events in a closed course is not a competition/racing vehicle for purposes of these regulations.

"Certificate of Conformity" means an Executive Order.

"Certification" means certification as defined in Section 39018 of the Health and Safety Code.

* * * *

ADD:

"Competition/Racing Vehicle" means those vehicles that are operated exclusively off of the highways on closed courses in organized racing/competition events conducted under the auspices of a recognized sanctioned body or by permit issued by the local governmental authority having jurisdiction.

* * * *

"EPA Enforcement Officer" DELETE,

REPLACE WITH:

"EPA Enforcement Officer" means an "ARB Enforcement Officer" which means any employee of the Air Resources Board so designated in writing by the Executive Officer of the Air Resources Board or by the Executive Officer's designee.

* * * *

"Executive Order" means an order issued by the Executive Officer of the Air Resources Board certifying engines for sale in California.

"Exhaust Emissions" DELETE,

REPLACE WITH:

"Exhaust Emissions" means substances emitted to the atmosphere from any opening downstream from the exhaust port of an off-highway vehicle.

* * * *

ADD:

"Go-Kart" means any four wheeled, open framed vehicle equipped with an internal combustion engine. These vehicles are generally found at amusement parks and rented to patrons on a "pay-by-

play" basis. These vehicles are generally designed for a single rider and run on a confined track. A go-kart that is not used exclusively in competition/racing events in a closed course is not a competition/racing vehicle for purposes of these regulations.

"Golf Cart" means a vehicle used to convey equipment and no more than two persons, including the driver, to play the game of golf in an area designated as a golf course. Golf carts are designed to have an unladen weight of less than 1,300 pounds and carry not more than 100 pounds, excluding passengers, accessories and optional equipment. A golf cart is not used for grounds keeping or maintenance purposes.

* * * *

"Motorcycle" DELETE,

REPLACE WITH:

"Motorcycle" means Off-Road Motorcycle, All-Terrain Vehicle, and Engines used in such vehicles.

* * * *

ADD:

"Off-Highway Recreational Vehicle Engines" or "Engines" are identified as: two-stroke or four-stroke, air-cooled, liquid-cooled, gasoline, diesel, or alternate fuel powered engines or electric motors that are designed for powering off-road recreational vehicles and engines included in, but not limited to use in, the following: off-road motorcycles, all-terrain vehicles, golf carts, go-karts 25 hp and greater, and specialty vehicles. All engines and equipment that fall within the scope of the preemption of Section 209(e)(1)(A) of the Federal Clean Air Act, as amended, and as defined by regulation of the Environmental Protection Agency, are specifically not included within this category.

"Off-Road Equipment and Vehicle" means any non-stationary device, powered by an internal combustion engine or electric motor, used primarily off the highways, to propel, move, or draw persons or property including any device propelled, moved, or drawn exclusively by human power, and used in, but not limited to the following applications: Marine Vessels, Construction/Farm Equipment, Locomotives, Utility engines and Lawn and Garden Equipment, Off-Road Motorcycles, and Off-Highway Vehicles.

"Off-Road Motorcycle" means any two or three wheeled vehicle equipped with an internal combustion engine and weighing less than 1,499 pounds. An off-road motorcycle is primarily designed for use off highways. These vehicles are mainly used for recreational riding on dirt trails but are not limited to this purpose. An off-road motorcycle that is not used exclusively in competition/racing events in a closed course is not a competition/racing vehicle for purposes of these regulations.

* * * *

ADD:

"Specialty Vehicles" means any vehicle powered by an internal combustion engine having not less than 3 wheels in contact with the ground, having an unladen weight generally less than 2,000 pounds, which is typically designed to be operated between 10 and 35 miles per hour. The recommended bed payload for specialty vehicles is usually up to 2,000 pounds. Specialty vehicles are mainly used off of highways and residential streets. Applications of such vehicles include, but are not limited to, carrying passengers, hauling light loads, grounds keeping and maintenance, resort or hotel areas, airports, etc.

* * * *

"Total Test Distance" DELETE,

REPLACE WITH:

"Total Test Distance" is defined as the appropriate distance the vehicle should be driven to stabilize the emission characteristics of the engine. The manufacturer shall determine the appropriate distance.

ADD:

"Ultimate Purchaser" means, with respect to any new off-highway recreational vehicles and engines, engines and equipment, the first person who in good faith purchases or leases a new off-highway recreational vehicle for purposes other than resale.

* * * *

"Useful life" DELETE,

REPLACE WITH:

"Useful life" is defined as follows:

ENGINE DISPLACEMENT

(in cubic centimeters)

0 to less than 170 170 to less than 280 280 or greater

* * * *

USEFUL LIFE

(in years and Kilometers)

5 years or 10,000 km 5 years or 10,000 km 5 years or 10,000 km

ADD:

"Vehicle Identification Number (VIN)" means an alpha numeric code which has been permanently assigned by the manufacturer to a vehicle. The VIN is unique to each vehicle and may contain information deemed necessary by governing agencies. Unless otherwise noted, the VIN will follow formats specified in the Code of Federal Regulations 49, Chapter V, Parts 565, 566, and 571, section 571.115 - Vehicle Identification Number - Content Requirements.

86.403-78 Abbreviations.

ARB- California Air Resources Board.

* * * *

Bhp- Brake-horsepower.

Bhp-hr- Brake horsepower-hour.

* * * *

Hp- Horsepower.

* * * *

PM- Particulate Matter

* * * *

86.404-78 Section Numbering

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86.405-78 Measurement system.

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

DELETE

86.407-78 Certificate of conformity required.

DELETE,

REPLACE WITH:

Every new off-road motorcycle, all-terrain vehicle, golf cart, and engines used in such vehicles produced for sale, lease, or use, or introduced into commerce in California which is subject to any of the standards prescribed in this subpart is required to be covered by an executive order issued pursuant to this subpart.

86.408-78 General Standards; Increase in Emissions; Unsafe Conditions.

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

REPLACE WITH:

"Any system installed on or incorporated in a new off-road motorcycle, all-terrain vehicle, golf cart or engines used in such vehicles to enable such vehicles to conform to standards imposed by this subpart:"

(b) DELETE,

REPLACE WITH:

(b) Every manufacturer of new off-road motorcycles, all-terrain vehicles, and engines used in such vehicles, which subject to any of the standards imposed by this subpart shall test or cause to be tested off-road motorcycles, all-terrain vehicles, and engines used in such vehicles, 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) "motorcycle" DELETE,

REPLACE WITH:

"off-road motorcycle, all-terrain vehicle, golf cart, or engine used in such vehicles,"

* * * *

86.410-90 Emission standards for 1990 and later model year motorcycles. 54 FR 14539, Apr. 11, 1989

(a) DELETE,

REPLACE WITH:

- (a)(1) Exhaust emissions from 1997 and later off-road motorcycles and all-terrain vehicles with engines greater than 90 cc shall not exceed:
 - (I) Hydrocarbons. 1.2 grams per vehicle kilometer. Compliance is based on a manufacturer's corporate average basis, as provided in (b) below.
 - (ii) Carbon Monoxide. 15.0 grams per vehicle kilometer.
 - (2) Exhaust emissions from 1999 and later off-road motorcycles and all-terrain vehicles with engines 90 cc or less shall not exceed:
 - (I) Hydrocarbons. 1.2 grams per vehicle kilometer. Compliance is based on a manufacturer's corporate average basis, as provided in (b) below.
 - (ii) Carbon Monoxide. 15.0 grams per vehicle kilometer.
 - (3) The standards set forth in paragraph (a)(1) of this section refer to the exhaust emitted over driving schedules as set forth in subpart F and measured and calculated in accordance with those procedures.

(b) DELETE,

REPLACE WITH:

(b) Compliance with a standards to be applied as a "corporate average" shall be determined as follows:

$$\frac{\sum_{j=1}^{n} (PROD)_{jx} (STD)_{jx}}{\sum_{j=1}^{n} (PROD)_{jx}} = STD_{ca}$$

n = Off-road motorcycle and all-terrain vehicle engine families.

 $PROD_{jx}$ = Number of units in engine family j produced for sale in California in model year x.

- STD_{jx} = The manufacturer designated HC exhaust emission standard for engine family j in model year x, which shall be determined by the manufacturer subject to the following conditions: (1) no individual engine family exhaust emission standard shall exceed 2.5 g/km, and (2) no engine family designation or engine family exhaust emission standard shall be amended in a model year after the engine family is certified for the model year, and (3) prior to sale or offering for sale in California, each engine family shall be certified in accordance with "California Exhaust Emissions Standards and Test Procedures for 1997 and Later Off-Highway Recreational Vehicle and Engine" adopted January 13, 1994, and shall be required to meet the manufacturer's designated HC exhaust emission standard as a condition of the certification Executive Order. Prior to certification the manufacturer shall also submit estimated production volumes for each engine family to be offered for sale in California.
- STD_{ca} = A manufacturer's corporate average HC exhaust emissions from those California off-road motorcycles and all-terrain vehicles subject to the California corporate average HC exhaust emissions standard, as established by an Executive Order certifying the California production for the model year. This order must be obtained prior to the issuance of certification Executive Orders for individual engine families for the model year and shall include but not be limited to the following requirements:
- (1) During the manufacturer's production year, for each vehicle produced for sale in California, the manufacturer shall provide the following information to the Executive Officer within 30 days after the last day in each calendar quarter:
 - (i) vehicle identification numbers and an explanation of the identification code if applicable;
 - (ii) model number and engine size of vehicle;

- (iii) the total number of vehicles marketed and produced as noncompetition vehicles for sale in California and their applicable designated emissions standards;
- (2) The manufacturer's average HC exhaust emissions shall meet the corporate average standard at the end of the manufacturer's production for the model year.
- (3) Production and sale of vehicles which result in noncompliance with the California standard for the model year shall cause a manufacturer to be subject to civil penalties, according to applicable provisions of the Health and Safety Code. All excess emissions resulting from non-compliance with the California standard shall be made up in the following model year.
- (4) For a period of up to one year following the end of the model year, for each model the manufacturer shall submit California sales and registration data as it becomes available.

ADD:

- (c) As an option to the standards set forth in section (a)(1) above, exhaust emissions from 1997 and later all-terrain vehicle engines shall not exceed the equivalent to the off-road motorcycle and all-terrain vehicle standard using the utility test procedures set forth in "California Exhaust Emission Standards and Test Procedures for 1995 and Later Utility and Lawn and Garden Equipment Engines", adopted March 20, 1992, and last amended April 8, 1993, which is hereby incorporated by reference herein. Compliance with the optional HC standard is based on a manufacturer's corporate average basis, as provided in (b) above.
- (d)(1) Emissions from 1997 and later model year golf carts operating in federal ozone nonattainment areas of California shall not exceed zero grams hydrocarbon, carbon monoxide, oxides of nitrogen, and particulate matter.
 - (2) These vehicles shall be certified by the Executive Officer pursuant to all applicable regulations set forth in CCR, Title 13, Chapter 9. Emission test procedures shall not be applicable to these vehicles.
 - (3) On or after January 1, 1997, manufacturers shall not produce for sale in federal ozone non-attainment areas of California new nonzero emission engines for use in golf carts.
- (e) No crankcase emissions shall be discharged into the ambient atmosphere from 1997 and later off-road motorcycles, all-terrain vehicles, golf carts, or engines used in such vehicles.
- (f) The Executive Officer may find that any off-road motorcycles, all-terrain vehicles, specialty vehicles, go-karts or engines used in such vehicles certified to comply with California emission standards and test procedures for on-road or other off-road applications are in compliance with these regulations.

86.411 - 78 Maintenance instructions, vehicle purchaser.

(a) "motorcycle" DELETE,

REPLACE WITH:

"off-road motorcycle, all-terrain vehicle, golf cart, and engines used in such vehicles"

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86.412 - 78 Maintenance instructions, submission to Administrator.

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(a)(1) DELETE,

REPLACE WITH:

(a)(1) The manufacturer shall provide to the Executive Officer, at least 30 days before being supplied to the ultimate purchaser (unless the Executive Officer 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 applications for certification or contained in the manufacturers' records. Such instructions must be reasonable and necessary to assure the proper functioning of the vehicle's emission control systems.

* * * *

b) "motorcycle" DELETE,

REPLACE WITH:

"off-road motorcycle, all-terrain vehicle, golf cart, and engines used in such vehicles"

* * * *

86.413 - 78 Labeling. 42 FR 56737, Oct. 28, 1977

(a) DELETE,

REPLACE WITH:

- (a) The California labeling requirements for 1997 and later model year off-road motorcycles, all-terrain vehicles, and engines used in such vehicles shall be consistent with Title 13, California Code of Regulations, Chapter 9, California Exhaust Emissions Standards and Test Procedures for 1995 and Later Off-Highway Recreational Vehicles and Engines Section 2413 and the incorporated "California Motor Vehicle Emission Control Label Specifications", adopted March 1, 1978, last amended July 12, 1991, which are incorporated herein by reference.
- (b) DELETE

86.414 - 78 Submission of vehicle identification number.

(a) DELETE, REPLACE WITH:

- (a) Upon the request by the Executive Officer, the manufacturer of any off-road motorcycle or all-terrain vehicle shall, within 30 days, identify by vehicle identification number, the vehicle(s) covered by the executive order.
- (b) DELETE,

REPLACE WITH:

- (b)(1) The manufacturer of any off-road motorcycle or all-terrain vehicle certified under an Executive Order shall furnish to the Executive Officer, at the beginning of each model year, its vehicle identification-number (VIN) coding system description which identifies such vehicle(s) as covered by the Executive Order.
- (b)(2) The (VIN) shall be consistent with the Code of Federal Regulations 49, Chapter V, Parts 565, 566, and 571, section 571.115 Vehicle Identification Number Content Requirements, except as noted below.
- (b)(3) Manufacturers shall identify all California certified off-road motorcycles and all-terrain vehicles by using any letter or digit other than the letter "C" or the digit "3" in the eighth character of the VIN.
- (b)(4) Manufacturers shall exclusively reserve all letters and digits other than the letter "C" or the digit "3" for use in the eighth character of the VIN of California certified off-road motorcycles and all-terrain vehicles.
- (b)(5) In lieu of (b)(3) and (b)(4) above, manufacturers may, at their option, agree to identify all non-certified competition off-road motorcycles and all-terrain vehicles offered for sale in California by using the letter "C" or the digit "3" in the eighth character of the VIN.
- 86.415 78 Production vehicles. 49 FR 48138, Dec. 10, 1984.

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86.416 - 80 Application for certification. 49 FR 48138, Dec. 10, 1984.

(a) DELETE, "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 if sought) are covered by the following:"

REPLACE WITH:

"New off-road motorcycles, all-terrain vehicles, and engines used in such vehicles are covered by the following:"

* * * *

(iii) DELETE,

REPLACE WITH:

(iii) Projected California sales data sufficient to enable the Executive Officer to select a test fleet representative of the vehicles for which certification is requested.

* * * *

(b) DELETE,

REPLACE WITH:

- (b) For new 1997 and subsequent model golf carts ["the vehicle(s)"], the certification application shall include the following:
 - (1) Identification and description of the vehicle(s) covered by the application.
 - (2) Identification of the curb weight and gross vehicle weight rating of the vehicle.
 - (3) Identification and description of the propulsion system for the vehicle.
 - (4) Projected number of vehicles produced and delivered for sale or use in California, and projected California sales.
 - (5) All information necessary for proper and safe operation and maintenance of the vehicle, including recharging information, and other relevant information as determined by the Executive Officer.
 - (6) A copy of the owner's manual must be submitted during certification for approval by the Executive Officer. The manual must include the information as required by subsections (1), (2), (3), and (5) above.

(c) DELETE,

REPLACE WITH:

- (c)(1) Manufacturers of off-road motorcycles, all-terrain vehicles, and engines used in such vehicles shall submit to the Executive Officer the number of vehicles marketed and produced as non-competition off-road motorcycles and all-terrain vehicles, and engines used in such vehicles.
 - (2) Such data shall must be submitted on a quarterly basis for all such vehicles and engines identified in the preceding paragraph that have been produced for sale in California on or after

January 1, 1997. In addition to the data required under paragraph (c)(1), manufacturers shall also provide the model number and VIN of each vehicle or engine sold for use in California and the number sold for use in California for each model. These data shall be provided to the Executive Officer within 30 days after the last day in each calendar quarter.

86.417 - 78 Approval of application for certification. 86.418 - 78 Test fleet selection. (a) DELETE, REPLACE WITH: Test fleet selection and requirements on test vehicles are found in 86.419 to 86.423. 86.419 - 78 Engine displacement, motorcycle classes. (b)(1) DELETE, REPLACE WITH: (b)(1) Class I - 0 to 169 cc displacement (0 to 10.4 cu. in.). 86.420 - 78 Engine families. 44 FR 48205, Aug. 17, 1979. 86.421 - 78 Test fleet. **DELETE** (b)

86.422 - 78 Administrator's fleet.

13

86.423 - 78 Test vehicles. 49 FR 48138, Dec. 10, 1984.

(a)(1) DELETE,

REPLACE WITH:

(a)(1) The manufacturer may perform a zero-kilometer exhaust emission test.

* * * *

(a)(3) DELETE

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86.425 - 78 Test procedures.

(a) DELETE,

REPLACE WITH:

(a) Off-road motorcycle and all-terrain vehicle emission test procedures are found in Subpart F. All-terrain vehicles shall be tested on the Class I cycle, regardless of the engine displacement. With prior approval by the Executive Officer, manufacturers of all-terrain vehicles may use the emission test procedures incorporated in California Code of Regulations, Title 13, Sections 2403 to certify their vehicles. The Executive Officer shall grant approval to those manufacturers who provide information and test results showing the appropriate emission standards on the utility and lawn and garden test cycle that are equivalent to the all-terrain vehicle emission standards set forth in 86.410-90(a)(1). The Executive Officer shall consider data submitted by the manufacturer from engines similar to the engine to be certified. This data will include, but not limited to, the engine size, performance, operating characteristics, and technology used. The data should be statistically valid in order to set the complying emissions standard applicable for the engine family to be certified on the utility and lawn and garden test cycle.

* * * *

86.426 - 78 Service accumulation. 42 FR 56737, Oct. 28, 1977.

DELETE,

REPLACE WITH:

Manufacturers shall determine the appropriate service accumulation for their vehicles.

86.427 - 78 Emission tests. 49 FR 48139, Dec. 10, 1984.

(a)(1) DELETE,

REPLACE WITH:

(a)(1) Each test vehicle shall be driven with all emission control systems installed and operating for

a period of time as deemed appropriate by the manufacturer to stabilize the emission characteristics of the engine.

* * * *

(b) DELETE,

REPLACE WITH:

- (b) All vehicles shall undergo at least two emission tests at intervals specified by the manufacturer. Additional tests may be performed at the manufacturers option.
- (c) DELETE
- (d) DELETE
- (e) DELETE

* * * *

86.428 - 80 Maintenance, scheduled; test vehicles.

DELETE,

REPLACE WITH:

Periodic maintenance on the engine, emission control system, and fuel system of test vehicles shall be scheduled for the same intervals that will be specified in the manufacturer's maintenance instructions furnished to the ultimate purchaser.

86.429 - 78 Maintenance, unscheduled; test vehicles.

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86.430-78 Vehicle failure. 49 FR 48139, Dec. 10, 1984.

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86.431 - 78 Data submission. 49 FR 48139, Dec. 10, 1984.

(a) DELETE,

REPLACE WITH:

(a) Data from all tests (including voided tests) performed by a manufacturer shall be included in the applications.

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86.432 - 78 Deterioration factor. 49 FR 48139, Dec. 10, 1984.

(a) DELETE,

REPLACE WITH:

(a) The manufacturer shall determine the appropriate deterioration factors.

* * * *

(c) DELETE,

REPLACE WITH:

- (c) Manufacturers shall determine the appropriate deterioration factor for the designated useful life.
- (d) DELETE

* * * *

(f) DELETE

86.434 - 78 Testing by the Administrator. 49 FR 48139, Dec. 10, 1984.

(a) DELETE,

REPLACE WITH:

(a) At the conclusion of certification testing by manufacturers, the ARB may require confirmatory testing. The ARB will designate where such testing shall be performed.

* * * *

86.435 - 78 Extrapolated emission values. 49 FR 48139, Dec. 10, 1984.

DELETE

86.436 - 78 Additional service accumulation. 49 FR 48139, Dec. 10, 1984.

DELETE

86.437 - 78 Certification. 47 FR 49807, Nov. 2, 1982.

(a) DELETE, "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:"

REPLACE WITH:

"Manufacturers of new off-road motorcycles and all-terrain vehicles produced on or after

their designated useful life." (b) DELETE 86.438 - 78 Amendments to the application. * 86.439 - 78 Alternative procedure for notification of additions and changes. 49 FR 48139, Dec. 10, 1984. 86.440 - 78 Maintenance of records. 49 FR 48140, Dec. 10, 1984. 86.441 - 78 Right of entry. 86.442 - 78 Denial, revocation, or suspension of certification. 42 FR 56738, Oct. 28, 1977. 86.443 - 78 Request for hearing. 86.444 - 78 Hearings on certification. Subpart F -- Emission Regulations for 1978 and Later New Motorcycles; Test Procedures SOURCE: 42 FR 1137, Jan. 5, 1977, unless otherwise noted.

January 1, 1997, shall submit to the Executive Officer a statement that the test vehicles with respect to which data are submitted have been tested, and conform to the requirements of the regulations to

86.501 - 78 Applicability.

86.502 - 78 Definitions. * 86.503 - 78 Abbreviations. DELETE, REPLACE WITH: The abbreviations in 86.403-78 apply to this subpart, with the following additions: ARB-California Air Resources Board. Bhp-Brake-horsepower. Bhp-hr-Brake horsepower-hour. Horsepower. Hp-PM-Particulate Matter. 86.504 - 78 Section numbering. 86.505 - 78 Introduction; structure of subpart. 86.508 - 78 Dynamometer. 42 FR 56738, Oct. 28, 1977. 86.509 - 90 Exhaust gas sampling system. 54 FR 14539, Apr. 11, 1989. * 86.511 - 90 Exhaust gas analytical system. 54 FR 14539, Apr. 11, 1989. 86.513 - 90 Fuel and engine lubricant specifications. 54 FR 14544, Apr. 11, 1989.

86.514 - 78 Analytical gases.

86.515 - 78 EPA Urban Dynamometer Driving Schedule. * 86.516 - 90 Calibrations, frequency and overview. 54 FR 14546, Apr. 11, 1989. 86.518 - 78 Dynamometer calibration. 86.519 - 90 Constant volume sampler calibration. 54 FR 14546, Apr. 11, 1989. 86.521 - 90 Hydrocarbon analyzer calibration. 54 FR 14546, Apr. 11, 1989. * 86.522 - 78 Carbon monoxide analyzer calibration. 86.523 - 78 Oxides of nitrogen analyzer calibration. 52 FR 47870, Dec. 16, 1987. * 86.524 - 78 Carbon dioxide analyzer calibration. 86.526 - 90 Calibration of other equipment. 54 FR 14551, Apr. 11, 1989. *

86.527 - 90 Test procedures, overview. 54 FR 14551, Apr. 11, 1989.

86.528 - 78 Transmissions.

86.529 - 78 Road load force and inertia weight determination. * 86.530 - 78 Test sequence, general requirements. 86.531 - 78 Vehicle preparation. 86.532 - 78 Vehicle preconditioning. 86.535 - 90 Dynamometer procedure. 54 FR 14551, Apr. 11, 1989. 86.536 - 78 Engine starting and restarting. 86.537 - 90 Dynamometer test runs. 54 FR 14551, Apr. 11, 1989. 86.540 - 90 Exhaust sample analysis. 54 FR 14551, Apr. 11, 1989. *

86.544 - 90 Calculations; exhaust emissions. 54 FR 14553, Apr. 11, 1989.

86.542 - 90 Records required. 54 FR 14551, Apr. 11, 1989.