STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, *Governor*

AIR RESOURCES BOARD
GEN-SMIT LABORATORY
TELSTAR AVENUE
EL MONTE, CA 91731-2990
PHONE: (818) 575-6800

Mail Out #96-16

April 29, 1996

To: Off-Highway Recreational Vehicle Manufacturers
All Other Interested Parties

Re: Guidelines for Certification of Off-Highway Motorcycles and All-Terrain Vehicles

The Air Resources Board (ARB) approved emission regulations applicable to off-highway recreational vehicles and engines in January 1994. The regulations were approved by the State's Office of Administrative Law on January 26, 1995. These regulations are applicable to: (a) specialty vehicles and engines used in such vehicles that are produced on or after January 1, 1995; and, (b) off-road motorcycles, all-terrain vehicles (ATVs), golf carts in federal ozone non-attainment areas of California, and go-karts, and engines used in all such vehicles that are produced on or after January 1, 1997. The regulations require that all of these vehicles, and engines used in such vehicles, be certified prior to introduction into commerce in California.

The enclosed "Guidelines for Certification of 1997 & Later Off-Road Motorcycles and All-Terrain Vehicles", dated April 29, 1996, provides recommended formats for certification applications. Specialty vehicles and go-karts can be certified using the current utility and lawn and garden equipment engine application format (Ref.: Mail-out No. 92-57, issued November 6, 1992). Guidelines for an abbreviated application format for certification of zero-emission golf carts in federal ozone non-attainment areas of California will be issued shortly.

The off-highway motorcycle/ATV formats were developed jointly between the ARB and off-road motorcycle and ATV manufacturers. Using these guidelines facilitates the certification review process and expedites the ARB's approval of certification applications. These guidelines do not require a listing of part numbers in the application for identifying emission-related components. Also, manufacturers are not required to provide information about high-altitude compliance methods or tamper-resistance measures. Lastly, for the ARB's planning purposes, manufacturers are encouraged to provide the ARB with an annual 'Letter of Intent' outlining their expected schedule for submitting certification applications for every calendar year. Such letters should be provided before submitting any certification applications for the applicable calendar year. Any additional general information about a manufacturer's particular calendar-year certification could also be provided in this letter.

Should you have any questions or need further assistance, please contact Mr. Duc Nguyen, Manager, Certification Section, at (818) 575-6844, or Mr. Ronald Haste, Staff Engineer, at (818) 575-7067.

Sincerely,

R. B. Summerfield,
Assistant Division Chief
Mobile Source Division

Enclosure

GUIDELINES FOR CERTIFICATION OF
1997 & LATER
OFF-ROAD MOTORCYCLES and ALL-TERRAIN VEHICLES

April 29, 1996

CALIFORNIA AIR RESOURCES BOARD
MOBILE SOURCE DIVISION
9528 TELSTAR AVENUE
EL MONTE, CA 91731-2990

SECTION 01.00.00.00: COMMUNICATIONS

.01.00.00: Technical Representatives.

Indicate the name(s), title(s), telephone and facsimile number(s), and mailing address(es) of the individual(s) authorized to communicate with the ARB staff about certification issues.

.02.00.00: Manufacturers' Advisory Correspondence, Mail-Outs, and other Technical Information.

Indicate the name, title, and mailing address of the appropriate person to whom such correspondence should be addressed. Only one individual is to be designated per manufacturer.

.03.00.00: Executive Order -- Recipient.

Indicate the name, title, telephone and facsimile numbers, and mailing address of the appropriate person to whom the Executive Order(s) should be addressed. Only one individual is to be designated per manufacturer.

.04.00.00: Executive Order -- Corporate Identification.

Indicate the appropriate corporate name that is to appear on the Executive Order.

Issued: _____

Revised: _____

SECTION 02.00.00.00: STATEMENTS OF COMPLIANCE

.01.00.00: General Statements.

Statements of compliance that any system used in a new engine and/or vehicle will not cause noxious or toxic substances to be emitted except as permitted; that the engine and/or vehicle test will not result in any unsafe conditions; that the engines and/or vehicles are tested using good engineering practice to ascertain that the test engine/vehicle meets the requirements for the useful life; that the engine and/or vehicle is tested in accordance with the applicable test procedures. (Ref.: Title 40 Code of Federal regulations [CFR], Section 86.408-78(a)(1) and (2), and 40 CFR 86.437-78(a)(1) [Ref.: United States Environmental Protection Agency (U. S. EPA) Advisory Circular No. 76].)

.02.00.00: Emission Control Labels.

Statement of compliance that the emission control label(s) comply with the provisions (e.g., content, durability, etc.) of Title 13, California Code of Regulations (CFR), Chapter 1, Article 2, Section 1965, and the incorporated "California Motor Vehicle Emission Control Label Specifications", adopted March 1, 1978, and last amended July 12, 1991.

.03.00.00: Certification Test Fuel.

Statement of compliance that the certification test fuel used for the test engine and/or vehicle complies with the provisions of the "California Exhaust Emissions Standards and Test Procedures For 1995 and Later Off-Highway Recreational Vehicles and Engines", adopted January 13, 1994. (Ref.: 40 CFR 86.513-90.)

Issued: _____

Revised: _____

SECTION 02.00.00.00: STATEMENTS OF COMPLIANCE (Continued)

.04.00.00: Representativeness to Production Units.

Statement of compliance that the necessary steps were taken to assure that the certification engine and/or vehicle with respect to its engine (as applicable), drivetrain, fuel system, emission control system components, exhaust aftertreatment device, vehicle mass, or any other device or component that can reasonably be expected to influence exhaust emissions, will be representative of production engines and/or vehicles (as applicable), and that either all components and/or vehicle construction processes, component inspection and selection techniques, and assembly techniques employed in constructing such engines and/or vehicles are reasonably likely to be implemented for production engines and/or vehicles (as applicable), or they are as closely analogous as practicable to planned construction and assembly processes. (Ref.: 40 CFR 86.440-78(4).)

.05.00.00: Deviation From Requirements.

Statement that any deviation(s) from the test procedures has been prescribed (i.e., approved) by the Executive Officer on the basis that the test engine and/or vehicle was determined not susceptible to satisfactory testing by the procedures set forth. (Ref.: 40 CFR 86.425-78.)

Issued: _____

Revised: _____

SECTION 03.00.00.00: STATEMENT OF CONFIDENTIALITY

.01.00.00: Statement of Business Confidentiality.

Identify the information included in the certification application (e.g., Section Number, Title, Page Number, etc.) for which confidentiality is claimed and, in accordance with Title 17, California Code of Regulations (CCR), Section 91022(c), provide the appropriate information (e.g., rationale, period of time, etc.) to support the claim of confidentiality.

Issued: _____

Revised: _____

SECTION 04.00.00.00: ENGINE FAMILY INFORMATION

.01.00.00: Model Year.

.02.00.00: Engine Family Name.
(Ref.: 40 CFR 86.420-78 [Engine Family Determination], and the U. S. EPA-standardized engine family naming procedure available from the U. S. EPA, Certification Division, Ann Arbor, Michigan.)

.03.00.00: Vehicle/Engine Model Name(s).

Model	EIM (kg)

Indicate the Equivalent Inertia Mass (EIM) for each vehicle model that is in an engine family. This is not applicable to ATVs certified with the optional ULGE engine test procedures.

.04.00.00: Number of Cylinders.

.05.00.00: Engine Configuration.

.06.00.00: Displacement (cc).

.07.00.00: Reserved.

.08.00.00: Fuel System.
Carburetor and number of venturi per carburetor, throttle body fuel injection, multiport fuel injection, etc.

.09.00.00: Method of Aspiration.
"N" = Natural
"T" = Turbocharged
"S" = Supercharged

.10.00.00: Cooling Medium.

Issued: _____

Revised: _____

SECTION 04.00.00.00: ENGINE FAMILY INFORMATION (Continued)

.11.00.00: Projected Engine Family Sales.

.12.00.00: Emission Control System(s).
(Ref.: Society of Automotive Engineers' procedure J1930, "Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations and Acronyms", September 1991.)

.13.00.00: Emission Control System Description(s).
For an engine modification, identify the specific type of modification(s), (e.g., valve timing, combustion chamber redesign, etc.).

Issued: _____

Revised: _____

SECTION 05.00.00.00: EMISSION LABEL INFORMATION

.01.00.00: Label Content.
Actual production labels, sample production labels, or illustrations of production labels are acceptable to demonstrate compliance with the label content requirements. (Ref.: 13 CCR, Section 2413(a).)

.02.00.00: Label Location.
Photographs of actual labeled production engines/vehicles, or illustrations of labeled production engines/vehicles are acceptable to demonstrate compliance with the label visibility requirements. (Ref.: 13 CCR, Section 2413(a).)

Issued: _____

Revised: _____

SECTION 06.00.00.00: TEST ENGINE/VEHICLE INFORMATION

.01.00.00: Test Engine/Vehicle Selection.
Describe the rationale for selecting the "worst-case" test engine/vehicle (Ref.: 40 CFR 86.421-78(a)). ATVs that are certified using the optional utility/lawn/garden equipment engine (ULGE) test procedures and emission standards should use the test engine selection method outlined in Mail-out No. 92-06, issued July 7, 1992.

.02.00.00: Test Engine/Vehicle.

.01.00: Model Year.

.02.00: Engine Family Name.
(Ref.: 40 CFR 86.420-78 [Engine Family Determination], and the U. S. EPA-standardized engine family naming procedure available from the U. S. EPA, Certification Division, Ann Arbor, Michigan.)

.03.00: Test Data Identification.

.04.00: Test Date.

.05.00: Test Facility Location.

.06.00: Test Procedure.
"CVS" = Subpart F of 40 CFR (Constant Volume Sampling).
"RGM" = Optional ATV certification using ULGE test procedures and emission standards (Raw Gas Method).

Issued: _____

Revised: _____

SECTION 06.00.00.00: TEST ENGINE/VEHICLE INFORMATION (Continued)

.07.00: Certification Test Fuel.

Gasoline: Indolene____ CBG____
Diesel: 13 CCR 2282____ 40 CFR 86.113-90____
40 CFR 86.113-94____

Indicate the specific fuel used for the certification tests. See 40 CFR 86.513-90 for the Indolene fuel specifications.

ATVs that are certified using the optional ULGE test procedures and emission standards may use, as applicable, Indolene, California Cleaner Burning Gasoline (CBG [formerly called Phase 2 gasoline]), federal diesel fuel or Clean California Diesel fuel. Refer to the latest amendment of the "California Exhaust Emission Standards and test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles", for CBG fuel specifications. Refer to 40 CFR 86.113-90 & -94 for the federal diesel fuel specifications, and to 13 CCR 2282 for the Clean California Diesel fuel specifications.

.08.00: Engine/Vehicle Model.

.09.00: Displacement (cc).

.10.00: Engine/Vehicle Identification.
(e.g., VIN, serial number, etc.).

.11.00: Engine Code.

.12.00: Fuel System.
Carburetor and number of venturi per carburetor, throttle body fuel injection, multiport fuel injection, etc.

Issued: _____

Revised: _____

SECTION 06.00.00.00: TEST ENGINE/VEHICLE INFORMATION (Continued)

.13.00: Rated Power (bhp and kW) @ Engine Speed (rpm).

.14.00: Rated Torque (lb-ft and N-m) @ Engine Speed (rpm).

.15.00: Test Data Source.
"C" = Certification
"R" = Running Change

.16.00: Equivalent Inertia Mass (kg).

.17.00: Transmission.
"MX" = Manual, Number of forward speeds
"AX" = Automatic, Number of forward speeds

Issued: _____

Revised: _____

SECTION 07.00.00.00: TEST RESULTS

.01.00.00: Emission Standards.
(Ref.: Title 13, CCR, Section 2412.)

.01.00: Hydrocarbon -- Corporate Average (gm/km)

.02.00: Carbon Monoxide (gm/km)

.02.00.00: Designated Emission Standard.

.01.00: Hydrocarbon (gm/km)
(Ref.: Title 13, CCR, Section 2412.)

.03.00.00: Official Test Results.

.01.00: Hydrocarbon (gm/km)

.02.00: Carbon Monoxide (gm/km)

.04.00.00: Deterioration Factors (as applicable).

.01.00: Hydrocarbon

.02.00: Carbon Monoxide

.03.00: Explain rationale for determination of DFs, or indicate that the test data was generated at the useful-life distance (i.e., 10,000 km).

.05.00.00: Certification Values.

.01.00: Hydrocarbon (gm/km)

.02.00: Carbon Monoxide (gm/km)

Issued: _____

Revised: _____

SECTION 08.00.00.00: TEST RESULTS -- OPTIONAL ULGE TEST/STANDARDS FOR ATVs

.01.00.00: ULGE Engine Emission Standards.

.01.00: ULGE Engine Displacement Class
(Ref.: Title 13, CCR, Section 2403(b).)

.02.00: ULGE Engine Emission Standards
(Ref.: Title 13, CCR, Section 2403(b).)

.02.00.00: Designated Emission Standard.

.01.00: Hydrocarbon and Oxides of Nitrogen (gm/bhp-hr)

.03.00.00: Official Test Results.

.01.00: Hydrocarbon (gm/bhp-hr)

.02.00: Oxides of Nitrogen (gm/bhp-hr)

.04.00: Hydrocarbon and Oxides of Nitrogen (gm/bhp-hr)

.05.00: Carbon Monoxide (gm/bhp-hr)

.04.00.00: Deterioration Factors (as applicable).

.01.00: Hydrocarbon and Oxides of Nitrogen

.02.00: Carbon Monoxide

.03.00: Explain rationale for determination of DFs, or indicate that the test data was generated at the useful-life distance (i.e., 10,000 km).

.05.00.00: Certification Values.

.01.00: Hydrocarbon and Oxides of Nitrogen (gm/bhp-hr)

.02.00: Carbon Monoxide (gm/bhp-hr)

Issued: _____

Revised: _____