State of California
AIR RESOURCES BOARD

Resolution 84-11

April 26, 1984

Agenda Item Nos.: 84-6-4
84-7-1

WHEREAS, Section 39601 of the Health and Safety Code authorizes the Air Resources Board (the "Board") to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Section 43107 of the Health and Safety Code authorizes the Board to adopt emission standards and test procedures in order to control air pollution from new 1977 and later model year motorcycles registered or sold in California;

WHEREAS, in 1975 the Board adopted a hydrocarbon (HC) exhaust emission standard of 1.0 gram per kilometer (g/km) for 1982 and subsequent model year California-certified Class III motorcycles (280 cubic centimeters and larger); and in 1980 the Board delayed the application of the 1.0 g/km HC exhaust emission standard until the 1984 model year for Class III motorcycles and adopted a 2.5 g/km interim standard;

WHEREAS, recent legislation (Stats. 1983, ch. 103; Health and Safety Code Section 43107.5) retained the 2.5 g/km HC exhaust emission standard for Class III motorcycles until July 1, 1984, and making the 1.0 g/km standard effective for Class III motorcycles manufactured on or after July 1, 1984;

WHEREAS, pursuant to the Board's direction in response to petitions from several motorcycle manufacturers requesting reconsideration of the 1.0 g/km HC exhaust emission standard, the staff has developed several regulatory alternatives to the 1.0 g/km standard which would achieve emission reductions and reduce or eliminate the need for manufacturers to install catalytic converters to achieve compliance;

WHEREAS, the California Environmental Quality Act and Board regulations require that an action not be adopted as proposed where it will have significant adverse environmental impacts and alternatives or feasible mitigation measures to the proposed action are available which would substantially reduce such impacts;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of Chapter 3.5 (commencing with Section 11340), Part 1, Division 3, Title 2 of the Government Code, and the language of the proposed regulatory amendments has been made available to the public in accordance with the provisions of Government Code Section 11346.8;

WHEREAS, the Board finds that:

Manufacturers could comply with the existing 1.0 g/km HC exhaust emission standard for Class III motorcycles only with extensive use of catalyst technology;

The use of available and technologically feasible non-catalyst control equipment will be much less costly to motorcycle manufacturers, and likely also to purchasers of motorcycles, than the extensive use of catalyst technology in its present stage of development to achieve further HC exhaust emissions reductions at this time from Class III motorcycles;

Manufacturers are presently able to comply with the current 2.5 g/km HC exhaust emission standard for Class III motorcycles and will be able to comply with a 1.4 g/km corporate average HC exhaust emission standard for Class III motorcycles after February 1985 and for the 1986 and 1987 model years using available and technologically feasible control systems;

The split HC exhaust emission standard consisting of 1.0 g/km applied as a corporate average for motorcycles 280 cc through 699 cc, and 1.4 g/km applied as a corporate average for motorcycles 700 cc and greater, for 1988 and subsequent model years is necessary and technologically feasible to address California's continuing severe air quality problems;

The adoption of the proposed regulatory amendments, as set forth in Attachment A hereto, in lieu of the existing 1.0 g/km standard will likely result in adverse environmental impacts in that it will result in a potential increase in HC exhaust emissions from Class III motorcycles, which is estimated to be 1.1 tons per day (t/d) in 1990 and 1.3 t/d in 1995 statewide;

It is also possible, but it is unlikely, that the proposed amendments may result in a potential minor increase in HC exhaust emissions from Class III motorcycles 280 cc through 699 cc to the extent that the use of an averaging procedure for the 1.0 g/km standard may permit some manufacturers to increase slightly the overall HC exhaust emissions from their Class III product lines;

The costs associated with the extensive use of catalysts on Class III motorcycles are unreasonable at this time due to their disproportionate adverse impact on dealers and other small businesses, and there are no feasible alternatives or mitigation measures available at this time to reduce the adverse impacts from the adoption of these amendments.

The benefits of the proposed amendments outweigh the adverse effects of the estimated potential increase in HC exhaust emissions in that adverse economic effects will be avoided, including substantial and sudden price increases and potentially limited Class III model availability, which could result if the 1.0 g/km HC exhaust emission standard were to be implemented for all Class III motorcycles manufactured after June 30, 1984;

Exhaust emission levels as low as 0.25 g/km HC for Class III motorcycles, equivalent to current passenger car HC emission standards, are potentially feasible in the future with the application of catalyst and other control technologies; and the Board's long-term mobile source control program is designed to achieve additional emission reductions in the future, from motorcycles and other vehicles, as advanced technology becomes available; and

Motorcycle manufacturers should strive ultimately to reduce HC exhaust emissions from Class III motorcycles to 0.25 g/km or lower.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby amends Sections 1958 and 1965 of Title 13, California Administrative Code, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the Board directs the staff to monitor the progress of the motorcycle industry in reducing HC exhaust emissions from Class III motorcycles and also directs the staff to propose for the Board's consideration appropriate more stringent HC exhaust emission standards for motorcycles to be implemented at such time as they are technologically feasible and cost effective.

BE IT FURTHER RESOLVED that the Board hereby determines that the regulations adopted herein are in the aggregate at least at protective of public health and welfare as applicable federal standards and are consistent with Section 202(a) of the federal Clean Air Act.

I certify that the above is a true and correct copy of Resolution 84-11, as adopted by the Air Resources Board.

Harold Holmes

Harold Holmes, Board Secretary

ATTACHMENT A

Amend Title 13, California Administrative Code, Section 1958(b) to read as follows:

(b) Exhaust emissions from new street use motorcycles, subject to registration and sold and registered in this state shall not exceed:

Exhaust Emission Standards
(grams per kilometer)

Model Year	Engine (in cubic centimeters)	Hydrocarbon	Carbon Monoxide
	* * *		
1982 ~~and 1983~~ through 1985 (manufactured prior to March 1, 1985)	280 cc or greater	2.5 g/Km	12
1985 (manufactured after February 28, 1985) through 1987	280 cc or greater	1.4 g/Km, applied as a corporate average,** provided that each engine family shall have only one applicable standard	12
1988 and subsequent	280 cc to 699 cc	1.0 g/Km, applied as a corporate average,** provided that each engine family shall have only one applicable standard	12
	700 cc or greater	1.4, applied as a corporate average,** provided that each engine family shall have only one applicable standard	

** Compliance with a standard 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 = Class III motorcycle engine families.

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

STD_{jx} = The ~~manufacturer/designated~~ HC exhaust emission standard for certification for engine family j in model year x, which is designated 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 Section 1958(c) 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 all California motorcycles 280 cc or greater which must comply with ~~state~~ the California HC exhaust emission standard, pursuant to an Executive Order certifying the manufacturer's total California production of units 280 cc or greater for each 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 engine family, the manufacturer shall provide the following information to the Executive Officer within 30 days after the last day in each calendar quarter:

(a) vehicle identification numbers and an explanation of the identification code;

(b) the total number of vehicles produced 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 non-compliance with the California standard for the model year shall cause a manufacturer to be subject to civil penalties, per vehicle, pursuant to Health and Safety Code Section 43154. All excess emissions resulting from final 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.

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code. Reference: Sections 39002, 39003, 43000, 43013, 43100, 43104 and 43107, Health and Safety Code; and Cal.Stats. 83, ch 103.

Amend Title 13, California Administrative Code, Section 1965 to read as follows:

In addition to all other requirements, tune-up labels required by California certification procedures shall conform to the "California Motor Vehicle Tune-Up Label Specifications," adopted March 1, 1978, ~~and~~ as last amended ~~June 16, 1982~~ April 26, 1984.

NOTE: Authority cited: Sections 39600 and 39601, Health and Safety Code. Reference: Sections 39002, 39003, 43000, 43013, 43100, 43101, 43102, 43104, 43107 and 43200, Health and Safety Code.

State of California
AIR RESOURCES BOARD

California Motor Vehicle Tune-Up
Label Specifications

1. Purpose. The Air Resources Board recognizes that certain emissions-critical or emissions-related parts must be properly adjusted in order for vehicles and engines to meet the applicable emission standards. The purpose of these specifications is to require motor vehicle or motor vehicle engine manufacturers to affix a label on each production vehicle in order to provide the vehicle owner with information necessary for the proper adjustment of these parts.

2. Applicability. These specifications shall apply to each new 1979 and subsequent model-year passenger car, light-duty truck, medium-duty vehicle, heavy-duty gasoline-fueled engine, and heavy-duty diesel-fueled engine, and to each new 1982 and subsequent model year motorcycle sold or offered for sale in California. Any vehicles or classes of vehicles exempt from exhaust emission standards pursuant to Article 2, Chapter 3, Title 13 of the California Administrative Code shall also be exempt from the requirements of these specifications. The responsibility for compliance with these specifications shall rest with the motorcycle, light-duty vehicle, medium-duty vehicle, or heavy-duty engine manufacturer who certified such vehicles or engines.

3. Label Content and Location

   (a) A plastic or metal label shall be welded, riveted or otherwise permanently attached to an area within the engine compartment (if

any) or to the engine in such a way that it will be readily visible to the average person after installation of the engine in a vehicle. In selecting an acceptable location, the manufacturer shall consider the possibility of accidental damage (e.g., possibility of tools or sharp instruments coming in contact with the label). The label shall be affixed 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 likely to be replaced during the vehicle's useful life. For motorcycles, passenger cars, light-duty trucks, and medium-duty vehicles, the label shall not be affixed to any equipment which is easily detached from the vehicle.

(b) 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: "Emission Control Information."

ii. Full corporate name and trademark of the manufacturer.

iii Engine family identification, model designation (for heavy-duty diesels), and engine displacement (in cubic inches, cubic centimeters or liters).

iv. Exhaust Emission Control System: Initials may be used such as EM - engine modification, AI - air injection, FI - fuel injection.

v. Engine tune-up specifications and adjustments as recommended by the manufacturer, including but not limited to valve lash, ignition dwell, ignition timing, idle air fuel mixture setting procedure and valve (e.g., idle CO, idle speed drop), high idle

speed, and, for diesels, initial injection timing, advertised horsepower, and fuel rate (in mm^3/stroke) at advertised horsepower (all as applicable). These specifications shall indicate the proper transmission position during tune-up and what accessories, if any (e.g. air conditioner), should be in operation, and what systems, if any (e.g. vacuum advance, air pump), should be disconnected during the tune-up. For gasoline-fueled vehicles, the instructions for tune-up adjustments shall be sufficiently clear on the label so as to preclude the need for a mechanic or vehicle owner to refer to another document in order to correctly perform the adjustments.

vi. A vacuum hose routing diagram showing all emissions-related and emissions-critical parts that are actuated by vacuum and the correct routing of vacuum hoses. This diagram shall contain no more than two different vacuum hose routing patterns; however, if there are two routings on a single diagram each routing must be easily understandable. The hose diagram may be separated from the "Emission Control Information" label provided that the vacuum hose diagram is placed in a visible and accessible position.

vii. For motorcycles only, any specific fuel or engine lubricant requirements (e.g., lead content, research octane number, engine lubricant type).

viii For heavy-duty engines, the date of engine manufacture (month and year).

ix. An unconditional statement of compliance with the appropriate model year California regulations; for example, "This vehicle (or engine, as applicable) conforms to California regulations applicable to _____ model year new _____ (specify motorcycles, passenger cars, light-duty trucks, medium-duty vehicles, heavy-duty gasoline engines, or heavy-duty diesel engines, as applicable)." For federally certified vehicles certified for sale in California the statement must include the phrase "conforms to federal regulations and is certified for sale in California". For Class III motorcycles for sale in California, the statement must include the phrase "is certified to _____ HC engine family exhaust emission standard in California." For incomplete light-duty truck and incomplete medium-duty vehicles the label shall contain the following statement in lieu of the above:

"This vehicle conforms to California regulations applicable to _____ model-year new vehicles when completed at a maximum curb weight of ____ pounds and a maximum frontal area of _____ square feet."

Such a statement shall not be used on labels placed on vehicles or engines which, in facts, do not comply with all applicable California regulations, including assembly-line test requirements, if any.

4. The provisions of these specifications shall not prevent a manufacturer from also reciting on the label that such vehicle or engine conforms to

any applicable federal emission standards for new motor vehicles or new motor vehicle engines or any other information that such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle or engine.

5. As used in these specifications, readily visible to the average person shall mean that the label shall be readable from a distance of eighteen inches (46 centimeters) without any obstructions from vehicle or engine parts (including all manufacturer available optional equipment) except for flexible parts (e.g., vacuum hoses, ignition wires). Alternatively, information required by these specifications to be printed on the label shall be no smaller than 8 point type size provided that no vehicle or engine parts, (including all manufacturer available optional equipment), except for flexible parts, obstruct the label.

6. The label and any adhesives used shall be designed to withstand for the vehicle's total expected life, typical vehicle environmental conditions in the area where the label is attached. Typical vehicle environmental conditions shall include, but are not limited to, exposure to engine lubricants and coolants (e.g. gasoline, motor oil, brake fluids, water, ethylene glycol), underhood temperatures, steam cleaning, and paints or paint solvents. The manufacturer shall submit, with its certification application, a statement attesting that its label comply with this requirement.

7. The manufacturer shall obtain approval from the Executive Officer for all label formats and locations prior to use. Approval of the specific tune-up settings is not required; however, the format for all such settings and tolerances, if any, is subject to review. If the Executive

Officer finds that the information on the label is vague or subject to misinterpretation, or that the location does not comply with these specifications, he or she may require that the label or its location be modified accordingly.

8. Samples of all actual production labels used within an engine family shall be submitted to the Executive Officer within thirty days after the start of production.

9. (a) The Executive Officer may, upon request, waive or modify any part of the requirements of these specifications for the 1979 model year if a vehicle or engine manufacturer does not have adequate lead time to comply with the aforementioned requirements.

   (b) The Executive Officer may approve alternate label locations or may, upon request, waive or modify the label content requirements provided that the intent of these specifications are met.

10. If the Executive Officer finds any motor vehicle or motor vehicle engine manufacturer using labels which are different from those approved or which do not substantially comply with the readability or durability requirements set forth in these specifications, the Executive Officer may invoke Secton 2109, Article 2, Subchapter 2, Chapter 3, Title 13, California Administrative Code.

State of California

Memorandum

: Gordon Van Vleck
Secretary
Resources Agency

Date : June 8, 1984

Subject: Filing of Notice of Decisions of the Air Resources Board

Harold Holmes
Board Secretary

From : Air Resources Board

Pursuant to Title 17, Section 60007 (b), and in compliance with Air Resources Board certification under section 21080.5 of the Public Resources Code, the Air Resources Board hereby forwards for posting the attached notice of decision and response to environmental comments raised during the comment period.

ATTACHMENTS
84-10
~~84-19~~
84-20
84-31
84-32

FILED AND POSTED BY
OFFICE OF THE SECRETARY
JUN 8 1984
Resources Agency of California