State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-100
Relating to Exemptions under Section 27156
of the Vehicle Code

P AND M RESEARCH AND DEVELOPMENT LABORATORIES
"PETRO-MIZER MK1 (TM)" DEVICE

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the "Petro-Mizer MK1 (TM)" device manufactured by P and M Research and Development Laboratory has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for vehicles that utilize a carburetor(s) and are powered by gasoline except for the following:

1. diesel powered vehicles
2. fuel injected vehicles.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as an exemption to sell, offer for sale or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE "PETRO-MIZER MK1 (TM)" DEVICE.

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Section 17500 of the Business and Professiors Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

> "43644. (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at El Monte, California, this 11th day of April, 1980.

K. D. Drachand, Chief
Mobile Source Control Division

State of California
AIR RESOURCES BOARD

March 13, 1980

Staff Report

Evaluation of P and M Research and Development Laboratories "Petro-Mizer Mk I" device for Compliance with the Requirements of Section 27156 of the California Vehicle Code

I. Introduction

P and M Research and Development Laboratory, 934 Vella Road, Palm Springs, CA 92262, has submitted an application requesting an exemption from the prohibitions of Section 27156 of the California Vehicle Code for its "Petro-Mizer Mk I" device. The device is designed for installation on 1980 and older model-year vehicles that utilize a carburetor(s) and are powered by gasoline except for the following:

1. all diesel powered vehicles
2. all fuel injected vehicles

II. System Description

The "Petro-Mizer MK I" device is designed to be installed in series with the vehicle's fuel supply line. The device can be installed anywhere between the fuel pump and carburetor fuel inlet port, depending on ease of access. The device consists of a 7.9 mm (0.312 inch) copper tube inserted between four permanent pole

magnets that are equally spaced on a 90° axis from each other. The magnets have ferromagnetic qualities (properties resembling iron). The magnets are held in place by an epoxy resin and then encased by an anodized aluminum shield. The copper tube extends at each end from the body of the device to allow for a hose coupling to secure the device to the fuel line by means of hose clamps.

III. System Function

The applicant claims that the "Petro-Mizer MK 1" device, when installed on the vehicle's fuel supply line, will change the molecular density of fuel by applying an energy field to the flow of gasoline. However, the applicant has not supported this claim with any technical substantiation.

IV. System Evaluation

The ARB's staff requested that the applicant submit the "Petro-Mizer MK 1" device to an emissions and fuel economy evaluation. The staff chose a representative vehicle from the applicant's applicable vehicle list. The representative vehicle was a 1980 Ford Fairmont with 3.3L (200 CID) engine that utilized exhaust gas recirculation, air injection and three-way catalyst with closed loop emission controls.

The applicant contracted with Olson Engineering, Inc. in Huntington Beach, CA, to perform back-to-back CVS-75 and HFET tests according to Federal Test Procedures for the evaluation of the device. The results of this testing (see Table 1) indicated that there was no negative emission effects and that the fuel economy test results were within the bounds of test variability. However, the ARB did

not perform confirmatory testing of the "Petro-Mizer MK 1" device as per the recommendations of the staff.

V. Discussion

The applicant has offered no explanation as to the mechanism by which the device can change the molecular density of the fuel by altering the applied energy field.

The ARB staff concluded that the ferromagnetic magnets encased within the device cannot develop adequate energy to change the bonding of the molecules in a gasoline compound. Furthermore, the density of the fuel will not change because the density is proportional to temperature and pressure, neither of which the device is capable of changing or influencing. The copper tube that is inserted through the body of the device is not known to act as a catalyst on gasoline, and there is no apparent method of providing energy to the device that would allow it to operate as the applicant describes.

The test conducted by Olson Engineering indicated that the "Petro-Mizer Mk 1" device does not significantly affect emissions or fuel economy.

VI. Conclusions and Recommendations

The ARB staff found no evidence that the "Petro-Mizer Mk I" device will have a significant adverse effect on emissions from a motor vehicle. The test results concluded that the device did not indicate any appreciable fuel economy benefits that can be attributed to the device.

Therefore, the staff recommend that P and M Research and Development Laboratories "Petro-Mizer MK 1" device be granted an exemption from the prohibitions from Section 27156 of the California Vehicle Code based on the test results and the nature of the device.

Table 1

LAB: Olsen Engineering/Huntington Beach
DEVICE: P and M Research and Development Labs/Petro-Mizer MKI (TM)

VEHICLE: 1980 Ford Fairmont
ENGINE SIZE: 3.3L (200 CID) w/1 Venturi Carburetor
EMISSION CONTROLS: Air injection, Exhaust gas recirculation, three-way catalyst w/closed loop

		grams/mile			mpg	
TEST DATE	TEST TYPE	CO	NOx	HC	CITY	HIGHWAY
3/6/80	BASELINE/CVS-75	3.83	0.89	0.41	17.65	24.25
3/7/80	DEVICE/CVS-75	3.24	0.96	0.31	18.64	26.65
	% Change From Baseline	-15%	+8%	-24	+6%	+10%