#### State of California AIR RESOURCES BOARD

# EXECUTIVE ORDER D-184-7 Relating to Exemptions Under Section 27156 of the Vehicle Code

## MAREMONT CORPORATION'S NEW AFTERMARKET OXIDATION CATALYTIC CONVERTERS

WHEREAS, Vehicle Code Section 27156 and Title 13, California Code of Regulations (hereafter "CCR"), Section 2222(h), authorize the California Air Resources Board (ARB) and its Executive Officer to exempt new aftermarket catalytic converters from the prohibitions of Vehicle Code Section 27156.

WHEREAS, Maremont Corporation of 250 E. Kehoe Blvd., Carol Stream, IL 60188, has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for their new aftermarket oxidation catalytic converters for the following application:

Converter Type Part Nos. Max. Engine Size Max. Veh. Weight

Oxidation 28706, 28735 460 CID (7.5 L) 6,000 lbs

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Division by Health and Safety Code Section 39516 and Executive Order G-45-5, the Air Resources Board finds that the above aftermarket catalytic converters comply with the California Vehicle Code Section 27156 and Title 13, California Code of Regulations, Section 2222(h).

IT IS HEREBY RESOLVED that the above catalytic converters are exempt from the prohibitions of Vehicle Code Section 27156 for installation on the approved application vehicles subject to the following conditions:

- No changes are permitted to the converters as described in the application for exemption. Any changes to the converters or any of their components, applicable model-years, or other factors addressed in this Executive Order must be evaluated and approved by the Air Resources Board prior to marketing in California.
- 2. Marketing of the converters using identification other than those shown in the exemption application or marketing of the converters for applications other than those listed in the application catalog shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of this product shall not be construed as exemption to sell, offer for sale, or advertise any component of the converters as the individual devices.

3. Any oral or written references to this Executive Order or its content by Maremont Corporation, its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption it provides is not an endorsement or approval of any emission reduction claims for the catalytic converters and is only a finding that the converters are exempt from the prohibitions of the Vehicle Code Section 27156.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after ten day written notice of intention to revoke it, during which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request, and the order may not be revoked until a determination is made, after the hearing, that grounds for revocation exist.

Executed at El Monte, California, this \_

day of April, 1991.

R. B. Summerfield

Assistant Division Chief Mobile Source Division

#### State of California AIR RESOURCES BOARD

EVALUATION OF MAREMONT CORPORATION'S
NEW AFTERMARKET OXIDATION CATALYTIC CONVERTERS FOR EXEMPTION FROM
THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH
TITLE 13, SECTION 2222, OF THE CALIFORNIA CODE OF REGULATIONS

#### State of California AIR RESOURCES BOARD

EVALUATION OF MAREMONT CORPORATION'S
NEW AFTERMARKET OXIDATION CATALYTIC CONVERTERS FOR EXEMPTION FROM
THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH
TITLE 13, SECTION 2222, OF THE CALIFORNIA CODE OF REGULATIONS

by

Mobile Source Division State of California Air Resources Board 9528 Telstar Avenue El Monte, CA 91731-2990

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

#### **SUMMARY**

Maremont Corporation has applied for an exemption for their new aftermarket oxidation catalytic converter part nos. 28706 and 28735, for exemption from the prohibitions of Vehicle Code Section 27156, and Title 13, Section 2222 of the California Code of Regulations. Maremont Corporation plans to use the new aftermarket catalytic converters on vehicles with a maximum engine size and weight of 460 CID (7.5 L) and 6,000 lbs., respectively.

Maremont Corporation has submitted emission test data to demonstrate that the catalytic converters meet the requirements of the California regulations for new aftermarket catalytic converters. Based on submitted emission test data, the staff recommends that the exemption be granted as requested.

### TABLE OF CONTENTS

		Page Number
SUMMARY		i
CONTENTS		ii
I.	INTRODUCTION	1
II.	CONCLUSION	1
III.	RECOMMENDATIONS	. 1
IV.	DEVICE DESCRIPTION	2
٧.	DISCUSSION	2

EVALUATION OF MAREMONT CORPORATION'S
NEW AFTERMARKET OXIDATION CATALYTIC CONVERTERS FOR EXEMPTION FROM
THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH
TITLE 13, SECTION 2222, OF THE CALIFORNIA CODE OF REGULATIONS

#### I. INTRODUCTION

Maremont Corporation of 250 E. Kehoe Blvd., Carol Stream, IL 60188, has applied for an exemption for their new aftermarket oxidation catalytic converter part nos. 28706 and 28735, in accordance with the California regulations on new aftermarket catalytic converters. The catalytic converter part no. 28706 is for vehicles with engine displacement up to 460 CID (7.5 L) and maximum equivalent test weight of 6,000 lbs. Part no. 28735 is intended for 1982 to 1986 Chevrolet and GMC light-duty trucks with engine sizes up to 460 CID (7.5 L).

#### II. CONCLUSION

Based on submitted exhaust emissions test data, the staff concludes that the catalytic converters meet the criteria set forth in Vehicle Code Section 27156 and Title 13, California Code of Regulations, Section 2222(h) for the stated application.

#### III. RECOMMENDATIONS

The staff recommends that Maremont be granted an exemption for their catalytic converter part nos. 28706 and 28735 as requested, and that Executive Order No. D-184-7 be issued, permitting the advertisement, sale and installation of the new aftermarket catalytic converters.

#### IV. <u>DEVICE DESCRIPTION</u>

The outer shell of Maremont's catalytic converters is constructed of 0.054 min. SAE 51409 stainless steel. The substrate consists of a monolithic, extruded honeycomb material, made of cordierite, mullite, alumina, and spinel. The dimensions of the honeycomb material are 5.7 x 3.2 x 2.96 inches with a total volume of 45.86 cubic inches. The active material in the honeycomb is Palladium mixed with Lanthanide Oxide coating and stabilizers. The catalytic converter has a total volume of 180 cubic inches, and weighs 8.5 lbs. A heat shield of 0.032 min. aluminized steel is welded to the converter shell to protect the vehicle underbody from heat. The device is sold with a warranty for 25,000 miles on the substrate, and five years or 50,000 miles on the shell. An installation manual is also enclosed in the sale kit.

#### V. DISCUSSION

Maremont has submitted test data on the catalytic converters conducted by Automotive Testing and Development Services, Inc., 15442 Chemical Lane, Huntington Beach, California. The two test catalysts were aged on two 1979 Ford F-250 pick-ups (test vehicle nos. 167-1 and 167-2), each with an engine size of 460 CID (7.5 L). The conversion efficiency tests were conducted on a third vehicle (test vehicle no. 167-3) with the same configuration as the other two mileage accumulation vehicles. The test weight for all three vehicles was 6,000 lbs.

Conversion efficiency tests on the two aged catalytic converters consisted of two CVS-75 emission tests with the aged catalytic converter installed on the slave test vehicle, and two CVS-75 tests with exhaust back-pressure simulator installed. The test results and conversion efficiencies

for the converters are given in Table 1.

Table: 1

#### OXIDATION CATALYTIC CONVERTERS

<u>Pollutant</u>	<u>Simulato</u> r	<u>Catalyti</u> c <u>Converter 1</u>	<u>Catalyti</u> c <u>Converter 2</u>	Conversion Efficiency, %
HC (g/mi)	4.342	0.838	0.626	83.1
CO (g/mi)	64.677	3.318	5.814	92.4
NOx (g/mi)	2.828	2.520	2.459	12.0

Based on the information submitted by Maremont Corporation and the test data from Automotive Testing and Development Services, Inc., the staff concluded that catalytic converter part nos. 28706 and 28735, meet the requirements of the California regulations. The staff recommends that Maremont Corporation be granted an exemption as requested.