

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-160-1
Relating to Exemptions under Section 27156
of the Vehicle Code

ADVANCED EMISSION TECHNOLOGY

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 Universal Fuel Fill Pipe Restrictor manufactured by Advanced Emission Technology 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 repairing damaged or missing fuel fill pipe restrictors on vehicles certified for unleaded gasoline only.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, 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.

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 UNIVERSAL FUEL FILL PIPE RESTRICTOR MANUFACTURED BY ADVANCED EMISSION TECHNOLOGY.

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.

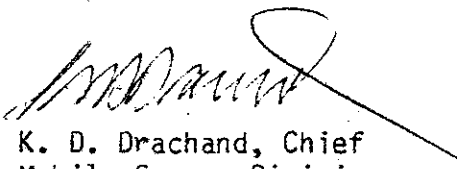
Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

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 10th day of June, 1986.


K. D. Drachand, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF ADVANCED EMISSION TECHNOLOGY'S UNIVERSAL FUEL FILL PIPE
RESTRICTOR FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156
IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA ADMINISTRATIVE
CODE

June, 1986

State of California
AIR RESOURCES BOARD

EVALUATION OF ADVANCED EMISSION TECHNOLOGY'S UNIVERSAL FUEL FILL PIPE
RESTRICTOR FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156
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CODE

by

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State of California
Air Resources Board
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(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

Advanced Emission Technology of Vancouver, Washington, has requested an update to their exemption from the California Vehicle Code (V.C.) Section 27156 under Executive Order D-160 for their universal fuel fill pipe restrictor to be used for repairing damaged fuel fill pipe restrictors on California certified vehicles designed to operate using unleaded gasoline. V.C. Section 27156 prohibits modifications to automobile emission control systems unless it is demonstrated that the effectiveness of the control system is not reduced.

The request is to include an additional method of attachment of the restrictor to the fill pipe. The previous Executive Order D-160 allowed the restrictor to be installed by soldering, silver soldering, brazing or welding. The additional method proposed is cold-welding the restrictor in place with a product called "J-B Weld." The staff evaluated this method of installation and found it to be satisfactory.

The staff recommends the request for an update be granted and that Executive Order D-160-1 be issued.

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EVALUATION OF ADVANCED EMISSION TECHNOLOGY'S UNIVERSAL FUEL FILL PIPE RESTRICTOR
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE
WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA ADMINISTRATIVE CODE

I. INTRODUCTION

Advanced Emission Technology (AET) of Vancouver, Washington, has requested an update to their exemption from the California Vehicle Code Section 27156 for the universal fuel fill pipe restrictor which is designed to repair the damaged or missing original equipment manufacturers' (OEM) fuel tank fill pipe restrictor. The request is to allow the restrictors to be installed using the cold-weld compound known as "J-B Weld" and to remove the restriction which allows sales of the device by qualified repair facilities or mechanics only. The purpose of this restriction on the sales of the device was intended to reduce the risk of explosion when welding or soldering around gas tanks. AET felt that qualified mechanics are familiar with methods of working on gas tanks safely. J-B Weld does not require open flame for installation. AET feels that the do-it-yourselfer can safely install the restrictor and therefore requests that the restriction on the sales be eliminated.

II. CONCLUSION

Evaluation of the installation of the restrictor with J-B Weld showed that this method is satisfactory. Based on the evaluation the staff concludes that the update should be granted as requested.

III. RECOMMENDATION

The staff recommends that Executive Order D-160-1 be issued.

IV. DEVICE DESCRIPTION

For a detailed description of the AET universal fuel fill pipe restrictor please refer to the December, 1985, staff report entitled

"EVALUATION OF ADVANCED EMISSION TECHNOLOGY'S UNIVERSAL FUEL FILL PIPE RESTRICTOR FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA ADMINISTRATIVE CODE."

The update requested is to include J-B Weld as a method of attachment of the restrictor to the fill pipe. J-B Weld consists of two parts; a liquid base containing fine metal particles and a hardening compound. When the two parts are mixed and applied to other metals a strong bond occurs once the solution solidifies. The J-B Weld company claims that J-B Weld is not affected by gasoline, which naturally would be a requirement for its use in a fill pipe.

V. DEVICE EVALUATION

A thorough evaluation of the AET universal fuel fill pipe restrictor is described in the same December, 1985, staff report. An evaluation of the installation using J-B Weld was performed in order to determine if the update requested should be granted. The same simple durability tests were performed on the restrictor when installed in a typical fill pipe with J-B Weld. The first test was performed approximately 32 hours after the J-B Weld was applied. This test showed that J-B Weld produced a satisfactory bond. To examine the effects of gasoline on J-B Weld the same fill pipe and restrictor were submerged in unleaded gasoline for approximately 24 hours. A second durability test was then performed. This test showed no degradation of the bond, therefore, J-B Weld was determined to be a satisfactory method of installation. AET will continue to sell their restrictor to repair facilities which will have the option of installing the restrictor with J-B Weld, by soldering or by welding. In addition to these sales, AET intends to market

the restrictor individually in auto parts stores for the do-it-yourselfer. The package will include the restrictor, a supply of J-B Weld and instructions for installing the restrictor with J-B Weld only. The packaging and installation instructions are satisfactory for over-the-counter sales.

VI. DISCUSSION

There is a need for a product of this type in California. Using the inspection/maintenance program test data summaries for a four month period it was determined that 3.3% of the vehicles tested had tampered fuel fill pipe restrictors. Out of 177,200 vehicles which require unleaded fuel that were tested, 5826 vehicles had been tampered. Since receiving Executive Order D-160, AET has sold thousands of their restrictors. The installed cost to the consumer ranges from 30 to 80 dollars. In order to provide a more economical means for customers to comply with emission regulations AET wishes to provide a product for the do-it-yourselfer. The staff believes this is a good idea because it will keep the cost of a fill pipe restrictor repair at a level where the consumer will not become upset when trying to obtain a certificate of compliance.

The installation of the AET restrictor with J-B Weld is satisfactory and a much safer method than was previously exempted. Therefore the staff recommends that AET be granted an update as requested and that Executive Order D-160-1 be issued.