

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-545

Relating to Exemptions under  
Section 27156 of the Vehicle Code

Clean Air Partners, Inc.  
Catalytic Particulate Filter

Pursuant to the authority vested in the Air Resources Board (ARB) 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-02-003;

IT IS ORDERED AND RESOLVED: That installation of Clean Air Partners, Inc.'s (CAP's) Catalytic Particulate Filter, manufactured for CAP (5066 Santa Fe Street, San Diego, California 92109) by Engelhard Corporation (101 Wood Avenue, Iselin, New Jersey 08830-0770), has been found not to reduce the effectiveness of the applicable vehicle pollution control system, and therefore, the Catalytic Particulate Filter is exempt from the prohibitions in Section 27156 of the Vehicle Code for installation on heavy-duty on-road vehicles equipped with: (1) 1996-2002 model-year Power Systems Associates, LLC. (PSA) original equipment-certified natural gas/diesel bi-fuel heavy-duty engines or (2) 1998-2002 model-year Caterpillar, Inc. heavy-duty diesel engines converted using natural gas/diesel bi-fuel retrofit systems manufactured by PSA or CAP. The applicable engines are listed in Attachment A.

The exemption is valid provided that the bi-fuel engines operate at an exhaust temperature greater than or equal to 225 degrees Celsius for 40 to 50 percent of the duty cycle. The engines can be operated using standard diesel with a maximum sulfur content of 500 parts per million by weight. The Catalytic Particulate Filters exempted under this Executive Order are listed in Attachment B.

This exemption is based on the following emission test results submitted by CAP for a 2001 model-year PSA C-10 bi-fuel engine with the Catalytic Particulate Filter:

Configuration	FTP Emissions (grams/brake-horsepower-hour)				
	THC	NMHC	CO	NOx	PM
Bi-Fuel w/ CPF	--	0.6	0.98	1.9	0.006
Diesel w/ CPF	0.04	--	0.20	3.7	0.013
Standards	1.3	1.2	15.5	4.0	0.10

The test data show that the exhaust emissions with the Catalytic Particulate Filter are below the applicable emission standards. The same emission impact is expected when the Catalytic Particulate Filter is installed on heavy-duty vehicles equipped with any of the engines listed in Attachment A.

This Executive Order is valid provided that installation instructions for the Catalytic Particulate Filter do not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

Changes made to the design or operating conditions of the Catalytic Particulate Filter, as exempt by the ARB, which adversely affect the performance of the vehicle's pollution control system, shall invalidate this Executive Order.

Marketing of the Catalytic Particulate Filter using identification other than that shown in this Executive Order or for an application other than that listed in this Executive Order shall be prohibited unless prior approval is obtained from the ARB.

This Executive Order shall not apply to any Catalytic Particulate Filter advertised, offered for sale, sold with, or installed on a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

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

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

In addition to the foregoing, the ARB reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of California Code of Regulations, Title 13, Section 2222, et seq.

**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 CLEAN AIR PARTNERS, INC.'S CATALYTIC PARTICULATE FILTER.**

Violation of any of the above conditions shall be grounds for revocation of this Executive Order. The Executive Order may be revoked only after a ten-day written notice of intention to revoke the Executive Order, in which period the holder of the Executive 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 Executive Order may not be revoked until a determination is made after a hearing that grounds for revocation exist.

Executed at El Monte, California, this 6<sup>TH</sup> day of August 2002.

  
Allen Lyons, Chief  
Mobile Source Operations Division

Attachment A

The Catalytic Particulate Filter can be used on the following engines:

Engine Make	Engine Model	Engine MY	Engine Family
Power Systems Associates	3126G	1997	VPS442DZJ6RK
		1997	VPS442DZJARK
	3126B	1999	XPSXH0442E6J
		2000	YPSXH0442E6J
		2001	1PSXH0442E6J
		2002	2PSXH0442E6J
	3176BG	1996	TPS629EZJARK
		1997	VPS629EZJ6RK
	C-10G	1997	VPS629EZJ6RM
	C-10	1998	WPSXH0629E6J
		1999	XPSXH0629E6J
		2000	YPSXH0629E6J
		2001	1PSXH0629E6J
		2002	2PSXH0629E6J
	C-10 Refuse	2001	1PSXH0629E6K
		2002	2PSXH0629E6K
	C-12	1998	WPSXH0729E6J
		1999	XPSXH0729E6J
		2000	YPSXH0729E6J
		2001	1PSXH0729E6J
2002		2PSXH0729E6J	
Caterpillar	3126	1998	WCPXH0442HRK
		1999	XCPXH0442HRK
	3126B	2000	YCPXH0442HRK
		2001	1CPXH0442HRK
		2002	2CPXH0442HRK
	C-10	1998	WCPXH0629ERK
		1999	XCPXH0629ERK
		2000	YCKPXH0629ERK
		2001	1CPXH0629ERK
		2002	2CPXH0629ERK
	C-12	1998	WCPXH0729ERK
		1999	XCPXH0729ERK
		2000	YCPXH0729ERK
		2001	1CPXH0729ERK
		2002	2CPXH0729ERK

Attachment B

DPX Filter Part No.	
MEX Catalyst	NEX Catalyst
134102-001	134101-002
134102-002	134101-003
134102-003	134101-004
134102-004	134101-005
134102-005	134101-006
134102-006	134101-007

Note: Clean Air Partners, Inc. uses Engelhard Corporation's DPX Catalyzed Soot Filter. The DPX filter part number identifies Engelhard Corporation's specific catalyst formulation, catalyst loading, and filter dimension. The Catalytic Particulate Filters exempted under this Executive Order include Engelhard Corporation's MEX and NEX catalyst formulations.