

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-420-10

Relating to Exemptions under
Section 27156 of the Vehicle Code

Engine Control Systems Ltd.
Purifilters

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-02-003;

IT IS ORDERED AND RESOLVED: That installation of the Purifilters, manufactured by Engine Control Systems Ltd. of 165 Pony Drive, Newmarket, Ontario, Canada L3Y 7V1, has been found not to reduce the effectiveness of the applicable engine emission control system, and therefore, the Purifilters are exempt from the prohibitions in Section 27156 of the Vehicle Code for installation on heavy-duty on-road vehicles equipped with the following 4-stroke diesel engines:

Model Year	Manufacturer	Engine Model
1994-2002	Caterpillar	3116, 3126, 3176, 3306, 3406, C10, C12, C15, C16 (all horsepower)
1994-2002	Cummins	L10, M11, N14, ISB, ISC, ISL, ISM, ISX, Signature, B-series, C-series (all horsepower)
1994-2002	DDC	Series 50, Series 55, Series 60 (all horsepower)
1994-2002	International	444 P, T444E, T444E HT, DT466, DT466 HT, DT466E, DT466E HT, 530E, 530 Med, 530 Hvy, DT530, DT530 HT, DT530E, DT530E HT, 7.3 DIT (all horsepower)
1994-2002	Mack	E7, EM7 (all horsepower)
1994-2002	Volvo	VE D12, VE D12B, VE D12C, VE D7A, VE D7C (all horsepower)

This Executive Order applies to 1994 through 2002 model-year engines, not originally equipped with an aftertreatment emission control system such as a catalytic converter. This Executive Order is only valid provided the engines meet the following operating condition: the engine exhaust temperature is between 280 and 325 degrees Celsius for at least 25 percent of the typical duty cycle.

The Purifilters exempted under this Executive Order can be installed on engines operated using standard California diesel with a maximum sulfur content of 500 parts per million by weight (ppmw), ultra-low sulfur diesel (ULSD) with a maximum sulfur content of 50 ppmw, or PuriNOx water emulsion fuel based on standard California diesel or ULSD. The Purifilters exempted under this Executive Order are identified in Attachment A.

This Executive Order is based on emission tests conducted by Engine Control Systems Ltd. with the Purifilter. Test data showed no adverse impact on engine emissions. The same emissions impact is expected when the Purifilters are installed on any of the engines listed above.

This Executive Order is valid provided that installation instructions for the Purifilters do not recommend tuning the engines to specifications different from those of the engine manufacturer.

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

Marketing of the Purifilters 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 Air Resources Board.

This Executive Order shall not apply to any Purifilters 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 Purifilters may have on any warranty either expressed or implied by the engine 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 Air Resources Board 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 ENGINE CONTROL SYSTEMS LTD.'S PURIFILTERS.

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.

Executive Order D-420-5, dated August 7, 2003, is hereby superseded and is of no further force and effect.

Executed at El Monte, California, this 25th day of January 2006.



for Allen Lyons, Chief
Mobile Source Operations Division

Attachment A

Purifilter Part Number	Purifilter Model
A11-XXXX	SC10H & SC10L SC13H & SC13L SC17H & SC17L SC20H & SC20L Dual SC13H/L Dual SC17H/L Dual SC20H/L

Note: Purifilter Part Number
Pre-fix A11 designates the Purifilter. XXXX designates a design and corresponding bill of materials.

Purifilter Model
SC10H/L: SC denotes silicon carbide substrate; 10 is the filter volume in liters; H denotes high catalyst loading; L denotes low catalyst loading.