## State of California AIR RESOURCES BOARD

## **EXECUTIVE ORDER D-425-41**

Relating to Exemptions Under Section 27156 of the California Vehicle Code

Toyota Racing Development TRD 3UR-FE Supercharger System

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 Section 39515 and Section 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the installation of the TRD 3UR-FE Supercharger System, manufactured and marketed by Toyota Racing Development, 19001 South Western Avenue, Torrance, California, has been found not to reduce the effectiveness of the applicable vehicle pollution control systems and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for the following 5.7L Toyota vehicle applications:

Part No.	Model Year	Engine Displacement	<u>Model</u>
PTR29-34070	2007 to 2011	5.7L	Tundra
PTR29-34070	2008 to 2011	5.7L	Sequoia
PTR29-34070	2008 to 2011	5.7L	Land Cruiser / Lexus LX570

The Supercharger System includes a Magnuson supercharger (rated at a maximum boost of 8.5 psi.) with a 2.45 inch diameter supercharger pulley and the stock crankshaft pulley, high flow injectors to replace the stock injectors, a new ECU calibration, intercooler, intake manifold, an air bypass valve, and a new replacement fuel pump which is located in the fuel tank. The stock lower air filter housing is retained while the stock air filter lid is replaced with a modified air filter housing lid. The Toyota hydrocarbon trap is permanently heat staked to the new housing lid.

This Executive Order is valid provided that the installation instructions for the TRD 3UR-FE Supercharger System 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 TRD 3UR-FE Supercharger System, as exempt by the Air Resources Board, which adversely affect the performance of the vehicle's pollution control system shall invalidate this Executive Order.

This Executive Order shall not apply to any TRD 3UR-FE Supercharger System advertised, offered for sale, sold with, or installed on a new motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

Marketing of the TRD 3UR-FE Supercharger System using any identification other than that shown in this Executive Order or marketing of the TRD 3UR-FE Supercharger System 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 the use of the TRD 3UR-FE Supercharger System may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on emission test results in the modified configuration using the Cold-Start CVS-75 Federal Test Procedure, Supplemental Federal Test Procedure (US06/SC03), and an examination of the On-Board Diagnostic II (OBD II) system. A 2008 model year Toyota Tundra with a 5.7 liter engine (8TYXT05.7BEX, LEV II ULEV) was used for the evaluation of the TRD 3UR-FE Supercharger System. Results from emissions testing conducted at Quantum Technologies, Lake Forest, California, are shown below (in grams per mile with deterioration factors applied):

	CVS-75				US06/SC03	
	NMOG	CO	NOx	HCHO	NMHC+NOx	CO
Standards, 50k	0.040	1.7	0.05	0.008	0.60/0.44	11.8/4.0
Device Test	0.020	0.3	0.02	0.000	0.05/0.02	2.5/0.14

The emission test results in the modified configuration were all below the applicable certification standards. Examination of the OBD II system showed the TRD 3UR-FE Supercharger System does not affect OBD II system operation. A similar effect on vehicle emissions and OBD II system operation is expected with the installation of the TRD 3UR-FE Supercharger System on vehicles listed in this Executive Order.

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 Title 13, California Code of Regulations, 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 THE TRD 3UR-FE SUPERCHARGER SYSTEM.

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.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the order, in 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 January 2011.

Annette Hebert, Chief

Mobile Source Operations Division