State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-215-50

Relating to Exemptions Under Section 27156 of the Vehicle Code

Edelbrock Corporation Tubular Exhaust 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-45-9;

IT IS ORDERED AND RESOLVED: That the installation of the Tubular Exhaust System, manufactured and marketed by the Edelbrock Corporation, 2700 California Street, Torrance, California 90509-2936 has been found not to reduce the effectiveness of the applicable vehicle pollution control system and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for the vehicle applications listed in Exhibit A.

This Executive Order is valid provided that the installation instructions for the Tubular Exhaust System will not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

The Tubular Exhaust System is manufactured out of 16 gage mild steel tubing or 17 gage stainless steel tubing. The header includes, where applicable, connecting pipes, the heat stove, air injection and EGR ports. The location of the oxygen sensor is not changed.

Changes made to the design or operating conditions of the Tubular Exhaust 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 Tubular Exhaust 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 Tubular Exhaust System using any identification other than that shown in this Executive Order or marketing of the Tubular Exhaust 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. Exemption of the Tubular Exhaust System shall not be construed as exemption to sell, offer for sale, or advertise any component of the kit as an individual device.

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

EDELBROCK CORPORATION-TUBULAR EXHAUST SYSTEM-D-215-50

This Executive Order is granted based on the following emissions test data on three vehicles certified to a Low Emission Vehicle (LEV) emission standard:

| | 1999 Ford F-150, 5.4L w/ p/n 6563 | | | 1999 Chevrolet C1500, 5.3L w/ p/n 6622 | | |
|-----------------|--------------------------------------|---------|-------|---|-----------|--|
| | NMOG CO | NOX | НСНО | NMOG CO | NOX HCHO | |
| Standard | 0.195 5.0 | 0.6 | 0.022 | 0.160 4.4 | 0.4 0.018 | |
| Device w/ dfs | 0.084 0.9 | 0.2 | 0.001 | 0.057 1.7 | 0.3 0.001 | |
| | 2001 Dodge I w/ p/n 6564 | Dakota, | 5.9L | | | |
| | NMOG CO | NOX | НСНО | | | |
| Standard | 0.100 4.4 | 0.4 | 0.018 | | | |
| Device w/ dfs + | 0 073 1 2 | 0 1 | 0.002 | | | |

Test results showed that tailpipe emissions with the Tubular Exhaust System installed on the vehicles met the vehicle's applicable emission standard during a Cold Start CVS-75 Federal Test Procedure. This Executive Order is also based on the On Board Diagnostic II (OBD II) testing conducted on the same test vehicles. Test data showed that the Tubular Exhaust System when installed on the vehicles did not affect the vehicle's ability to perform its OBD II monitoring.

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 EDELBROCK CORPORATION'S TUBULAR EXHAUST 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.

Executive Orders D-215-40, dated March 1999, D-215-44, dated October 1999, and D-215-45, dated February 2000 are superseded and of no further force and effect.

Executed at El Monte, California, this / A day of July 2001.

(R. B. Summerfield, Chief Mobile Source Operations Division

EDELBROCK CORPORATION-TUBULAR EXHAUST SYSTEM-D-215-50

1999 Ford F-150, 5.4L w/ p/n 6563

| | NMOG | CO | NOX | НСНО |
|---------------|-------|-----|-----|-------|
| Standard | 0.195 | 5.0 | 0.6 | 0.022 |
| Device w/ dfs | 0.084 | 0.9 | 0.2 | 0.001 |

2001 Dodge Dakota, 5.9L w/ p/n 6564

| | NMOG | CO | NOX | HCHO |
|---------------|-------|-----|-----|-------|
| Standard | 0.100 | 4.4 | 0.4 | 0.018 |
| Device w/ dfs | 0.073 | 1.2 | 0.1 | 0.002 |

Test results showed that tailpipe emissions with the shorty style Tubular Exhaust System installed on the vehicles met the vehicles' applicable emission standards during a Cold start CVS-75 Federal Test Procedure. Edelbrock also conducted an on-board diagnostic (OBD) II testing on the same test vehicles. Test data showed that the shorty style Tubular Exhaust System did not affect the vehicle's ability to perform OBD II monitoring. The same impact on emissions and OBD II function is expected from the installation of the shorty style Tubular Exhaust System on the vehicles in Edelbrock's requested application.

Executive Order No. D-215-40 and D-215-44 cover exemptions for long-tube style headers for various Chrysler, Ford and GM vehicles. Edelbrock requests that this vehicle coverage be updated to include new part numbers and models for Chrysler and GM vehicles. No additional testing was conducted in support of this request. Edelbrock previously submitted test data, on a 1999 Chevrolet 1500 truck certified to the LEV standards, in support of Executive Order No. D-215-44. The update includes 2001 GM vehicles which are certified to the LEV standards and use the same part numbers 6600 and 6622 as the previous models. Since the vehicles are a carry-over from the previous model years and there are no changes to the header design, no impact on emissions is expected from inclusion of the 2001 GM vehicles.

The update on Chrysler vehicles involves new part numbers and inclusion of vehicle models certified to TLEV and LEV standards. Previous emissions data submitted by Edelbrock in support of D-215-40 were based on testing using a Chrysler truck certified to the Tier 1 emission standards. Edelbrock has tested a 2001 5.9L Dodge Dakota truck using a shorty style header; however, this would not represent the emissions impact of a long-tube style header. Therefore, staff limited the update to cover only Chrysler vehicles certified to the Tier 1 standards. Inclusion of Chrysler vehicles certified to TLEV and LEV standards would require testing the long-tube style header using a Chrysler vehicle certified to the LEV standards.

For the F150, NMOG and HCHO were calculated using the following conversion factors for the vehicle: NMOG/NMHC=1.0141 and HCHO/NMHC= 0.011, measured values, NMHC 0.080, CO 0.767, NOX 0.149. 50K deterioration factors (dfs) used were NMOG, 0.0171, CO, 0.49, NOx, 0.11 and HCHO, 0.009. Vehicle test weight and horse power, 6000 lbs. and 18.6.

For the Dakota, NMOG and HCHO were calculated using the following conversion factors for the vehicle: NMOG/NMHC=1.037 and HCHO/NMHC= 0.0227, measured values, NMHC 0.071, CO 1.086, NOX 0.088. 50K deterioration factors (dfs) used were NMOG, 1.0, CO, 1.1, NOx, 1.1 and HCHO, 1.1. Vehicle test weight and horse power, 5000 lbs. and 14.0.

Exhibit A LONG TUBE STYLE HEADERS

CHRYSLERS

| <u>. art No</u> . 6601** 6604** 6605 6606 6664 | <u>Vehicle Application</u> Chrysler Truck Grand Cherokee Chrysler Truck Viper Dakota/Durango | Engine Disp. 5.2/5.9L 5.2/5.9L 8.0L 8.0L 5.2/5.9L | <u>Model-Year</u> 1994-99 1992-99 1994-99 1992-2000 1996-99 |
|---|---|--|--|
| FORD | | | |
| <u>Part No</u> . 6649 6745 | <u>Vehicle Application</u> Truck Mustang w/EGR | <u>Engine Disp.</u> 5.8L 5.0L | <u>Model-Year</u> 1988-97 1994/95 |
| <u>GENERAL M</u> | <u>OTORS</u> | | |
| Part No. | Vehicle Application | <u>Engine Disp.</u> | <u>Model-Year</u> |
| 6708, 6908 6711, 6911 | S-series P/U, Auto Trans, 2 WD S-series P/U, Man. Trans, 2 WD | 4.3L 4.3L | 1996-98 1996-98 |
| 6709, 6909 6712, 6912 | S-series P/U, Blazer, Jimmy Auto Trans, 4 WI S-series P/U, Blazer, Jimmy Man. Trans, 4 WI | | 1996-98 1996-98 |
| 710, 6910 6713, 6913 | S-series P/U, Blazer, Jimmy Auto Trans, 2 WI S-series P/U, Blazer, Jimmy Man. Trans, 2 WI | | 1996-98 1996-98 |
| 6715 | S-series P/U, Man. Trans, 2 WD | 4.3L | 1998 |
| 6714, 6914 | 1/2 Ton Full Size P/U, 2 or 4 WD | 4.3L | 1996-98 |
| 6610 6615 | 1500 P/U & Suburban, w/o AIR, 2 or 4 WD 1500 P/U & Suburban, Tahoe, Yukon w/o AIR, 2 or 4 WD | 5.0L 5.7L | 1996-98 1996-98 |
| 6608 6609 | 2500/3500 P/U & Suburban, w/ AIR, 2 or 4 WI 2500/3500 P/U & Suburban, w/o AIR, 2 or 4 W | | 1996-2000 1996-2000 |
| 6665 | 2500/3500 P/U, w/o AIR, Dual Catalyst 2 or 4 WD | 7.4L | 1996-98 |
| 6625 | 1500 P/U & Suburban, Tahoe, Yukon with AIR, 2 or 4 WD | 5.0/5.7L | 1998/99 |
| 6600 | Trucks, w/o A.I.R. | 4.8/5.3L | 1999-2001 |
| 6622 6672 - 6573 3633 | Trucks, w/ A.I.R. Camaro/Firebird Camaro/Firebird Trucks | 4.8/5.3L 5.7L 5.7L 6.0L | 1999-2001 1998-1999 2000 1999-2000 |

** 1998/99 model-year Chrysler Trucks with the following engine families, that have been certified to a TLEV or LEV emission standard are excluded: WCRXA0360H31, WCRXA0360H32, and WCRXA0360J31, XCRXA0360H31, XCRXA0360H31, XCRXA0360H32

Exhibit A SHORTY STYLE HEADERS

CHRYSLERS

| ~ <u>art No</u>. _ <i>j</i> 64* | <u>Vehicle Application</u> Dakota/Truck Durango | <u>Engine Disp.</u> 5.2/5.9L 5.2/5.9L | <u>Model-Year</u> 1995-2001 1998-2001 |
|---|--|--|---|
| FORD | | | |
| <u>Part No</u> . 6563 | <u>Vehicle Application</u> Truck/SUVs | <u>Engine Disp.</u> 5.4L | <u>Model-Year</u> 1997-2001 |
| GENERAL MOTOR | <u>RS</u> | | |
| <u>Part No</u> . 6566 | Vehicle Application K-5 Full size Blazer TBI w/o A.I.R. Suburban TBI Trucks w/o A.I.R. Blazer/Tahoe/Yukon/Suburban TBI single cat w/o A.I.R. K-5 Full size Blazer/Jimmy/Suburban TBI w/o A.I.R. | Engine Disp. 5.7L 5.0/5.7L 5.0/5.7L 5.0/5.7L 5.0/5.7L | Model-Year 1992/93 1992-95 1988-95 1993-95 1987-91 |
| 6567 | Trucks TBI w/ A.I.R. Blazer/Tahoe/Yukon/Suburban TBI single cat w/o A.I.R. K-5 Full size Blazer/Jimmy/Suburban w/ A.I.R. | 5.0/5.7L 5.0/5.7L 5.0/5.7L | 1988-95 1993-95 1987-91 |
| 6510 | Trucks w/o A.I.R. single cat. Tahoe/Yukon/Trucks w/o A.I.R. dual ca Cadillac ES | 5.0L t. 5.7L 5.7L | 1996/97 1996-1998 1999 |
| 6525 | Trucks/Suburban/Tahoe/Yukon w/ A.I.R. dual cat. | 5.7L | 1998-2000 |
| 6527 | C-10 Truck w/ carb A.I.R. and cat. Truck w/ carb A.I.R. and cat. Suburban TBI w/o A.I.R. Blazer/Jimmy w/ carb & A.I.R. | 5.7L 5.0/5.7 5.7L 5.0/5.7L | 1979-80 1981-87 1991 1983-86 |
| 6500 | Trucks/Suburban/Tahoe/Yukon w/o A.I. | R. 4.8/5.3/6.0L | 1999-2001 |
| 6501 | Trucks/Suburban/Tahoe/Yukon w/ A.I.R | R. 4.8/5.3/6.0L | 1999-2001 |

* 2001 model-year Chrysler Trucks with the following engine families, that have been certified to a ULEV emission standard are excluded: 1CRXA0360H41, 1CRXA0360J41, and 1CRXA0360K41