EXECUTIVE ORDER A-021-0435 New On-Road Heavy-Duty Engines

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

| MODEL YEAR | ENGINE FAMILY | ENGINE SIZES (L) | FUEL TYPE 1 | STANDARDS & TEST PROCEDURE | INTENDED SERVICE CLASS 2 | ECS & SPECIAL FEATURES 3 | | | | | | |
|---------------|--|---|-------------|----------------------------------|--------------------------------|----------------------------------|--|--|--|--|--|--|
| 2007 | 7CEXH0408BAE | 6.7 | Diesel | Diesel | MHDD | DDI, ECM, TC, CAC, EGR, OC, PTOX | | | | | | |
| ENGINE (| ENGINE MODELS / CODES (rated power, in hp) | | | | | | | | | | | |
| 6.7 | | ISB305 / 1283;FR91464 (305); ISB 305 / 1265;FR91461 (305) | | | | | | | | | | |
| • | | • | | | | | | | | | | |
| • | | | | | | | | | | | | |
| • | | | | * | | | | | | | | |

=not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; #liter; hp=horsepower; kw=kllowatt;

CNG/LNG-compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a. BF=bi fuel; DF=dual fuel; FF=flexible fuel;

CNG/LNG=compresseo/inducried natural gast, LPG=inquened petroleum gast, EBS=55% enanor fuel; MH=muiti fuel a.k.a. BF=bit fuel; DF=dual fuel; FF=flexible fuel;

LMMH HDD=light/medium/heavy heavy-duty diesel; UB=urban bust; HDO=heavy duty Ofto;

ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; WU (prefix) =warm-up catalyst; DPF=diesel particulate filter; PTOX= Periodic Trap Oxidizer (Active Diesel Particulate Filter); HO25/O25=heated/oxygen sensor; HAFS/AFS=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SFI/MFI-sequential/muit port fuel injection; GCAFB=gaseous carburetor; IDI/DDI=infectior injection specifies (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SFI/MFI-sequential/muit port fuel injection; CTSC=turbos/super charger; CAC=charge air cooler; EGR=exhaust gas recirculation PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; ECMPCM=engine/powertrain control module; EM=engine modification; 2 (prefix)=parallel; (2) (suffix)=in senies (2006Detection); CACRETOR (CTS) = CTS = CTS

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.1 (urban bus) or 13 CCR 1956.8 (other than urban bus); 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.1 or 13 CCR 1956.8 are in parentheses.)

| | NMHC | | NOx | | NMHC+NOx | | co | | PM | | нсно | |
|------|-------|------|-----|------|----------|------|--------|------|-------|-------|------|------|
| | FTP | EURO | FTP | EURO | FTP | EURO | FTP | EURO | FTP | EURO | FTP | EURO |
| STD | 0.5 | 0.5 | • | * | * | | 15.5 | 15.5 | 0.01 | 0.01 | • | • |
| FEL | | • | ٠ | * | 2.2 | 2.2 | * | • | • | • | • | • |
| CERT | 0.02 | 0.00 | • | • | 2.0 | 1.8 | 0.1 | 0.00 | 0.000 | 0.000 | . * | • |
| NTE | 0.625 | | • | | 2.75 | | 19.375 | | 0.015 | | • | |

g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle; NTE=Not-to-Exceed; STD=standard or emission lest cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formalder

BE IT FURTHER RESOLVED: Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels) and 13 CCR 2035 et seq. (emission control warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this

___ day of January 2007.

Annette Hebert, Chief
Mobile Source Operations Division