CATERPILLAR INC.

I STANDARDS I INTENDED I

EXECUTIVE ORDER A-013-0187 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 | & TEST PROCEDURE | SERVICE CLASS 2 | ECS & SPECIAL FEATURES 3 | | | | | | | |
|---|---|--|--|--|--|---|--|--|--|--|--|--|--|
| 2007 | 7CPXH0442H1K | 7.2 | Diesel | Diesel | MHDD | DDI, TC(2), CAC, EGM, EGR, PTOX | | | | | | | |
| ENGINE (| L) | | ENGINE MO | DELS/CODES (F | ated power, li | n hp) | | | | | | | |
| 7.2 | | C7 / CERT ENG (350) | | | | | | | | | | | |
| * | | · | | | | | | | | | | | |
| # | | | | | | | | | | | | | |
| * | | | | * | | | | | | | | | |
| L=liter; hp= CNG/LN L/M/H H ECS=er sensor; HA GCARB=ga | chorsepower, kwiekilowatt, NG=compressed/liquefied r NDD=light/medium/heavy hunders Sion control system; hunderstel-ra FS/AFS=heated/air-fuel-ra aseous carburetor; IDVDD1 | natural gas; LPG=liq eavy-duty diesel; UE ICIOC=three-way/ox tio sensor (a.k.a., un =indirect/direct diese | uefied petroleum gas; E85=85% et =urban bus; HDO=heavy duty Ott idizing catalyst; WU (prefix) =warn iversal or linear oxygen senson); T | hanol fuel; MF=multi o; n-up catalyst; DPF=c BI=throttle body fuel arger; CAC=charge a | ifuel a.k.a. BF= diesel particulat injection; SFI/N ir cooler; EGR= | R 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; thi fuel, DF=dual fuel; FF=flexible fuel; the filter, PTOX=Periodic Trap Oxidizer; HO2S/O2S=heated/oxygen AFI=sequentia/multi port fuel injection; DGI=direct gasoline injection; exhaust gas recirculation, PAIR/AIR=pulsed/secondary air injection; in series (2007Jan06) | | | | | | | |

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 fieu 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 | | СО | | PM | | нсно | |
|------|------|------|------|------|----------|------|--------|------|-------|-------|------|------|
| | FTP | EURO | FTP | EURO | FTP | EURO | FTP | EURO | FTP | EURO | FTP | EURO |
| STD | 0.14 | 0.14 | * | * | * | | 15.5 | 15.5 | 0.01 | 0.01 | * | * |
| FEL | * | * | 1.16 | 1,16 | 1.3 | 1,3 | * | * | * | * | * | * |
| CERT | 0.1 | 0.1 | 0.8 | 1.0 | 0.9 | 0.9 | 0.8 | 0.04 | 0.001 | 0.002 | * | * |
| NTE | 0.21 | | 1.74 | | 1,95 | | 19.375 | | 0.015 | | * | |

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

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: The listed engine models have been certified to the split engine family standards under 13 CCR 1956.8(b) [diesel engines] or 13 CCR 1956.8(d) [Otto engines] and the incorporated 40 CFR 86.007-15(m)(9).

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