California Environmental Protection Agency AIR RESOURCES BOARD	GENERAL MOTORS CORPORATION	EXECUTIVE ORDER A-006-1269 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: That 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 SIZE (liter)	FUEL TYPE [1]	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS [2]	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS [3]
2005	5GMXH06.6593	6.6	Diesel	Diesel	MHDD	ECM, OC, CAC, DDI, TC, EGR
ENGINE MODELS / CODES (rated power in horsepower, hp)						
LLY: 21 (300 hp), 31 (300 hp)						

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;
[1] **CNG/LNG**=compressed/liquefied natural gas; **LPG**=liquefied petroleum gas; **E85**=85% ethanol fuel; **MF**=multi fuel or **BF**=bi fuel; **DF**=dual fuel; **FF**=flexible fuel;
[2] **L/M/H HDD**=light/medium/heavy heavy-duty diesel; **UB**=urban bus; **HDO**=heavy duty Otto;
[3] **TWC/OC**=three-way/oxidizing catalyst; **WU (prefix)** =warm-up catalyst; **DPF**=diesel particulate filter; **HO2S/O2S**=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/multi port fuel injection; **DGI**=direct gasoline injection; **GCARB**=gaseous carburetor; **IDI/DDI**=indirect/direct diesel injection; **TC/SC**=turbo/super charger; **CAC**=charge air cooler; **EGR**=exhaust gas recirculation; **PAIR/AIR**=pulsed/secondary air injection; **SPL**=smoke puff limiter; **ECM/PCM**=engine/powertrain control module; **EM**=engine modification; **2 (prefix)**=parallel; **(2) (suffix)**=in series;

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.1 (urban bus) or 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.) [4]

* = not applicable	NMHC		NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.5	0.5	*	*	2.5	2.5	15.5	15.5	*	*	*	*
FEL	*	*	*	*	*	*	*	*	0.09	0.09	*	*
CERT	0.2	0.1	*	*	2.4	2.3	2.2	0.3	0.08	0.08	*	*
NTE	0.625		*		3.125		*		0.125		*	

[4] **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 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: That 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: That 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).

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

Executed at El Monte, California on this 1ST day of June 2004.

Allen Lyons, Chief
Mobile Source Operations Division