CALIFORNIA AIR RESOURCES BOARD	GENERAL MOTORS LLC.	Executive Order: A-006-2238 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 1 of 4

Pursuant to the authority vested in California Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED:That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

TEST GROUP INFORMATION

MODEL YEAR	TEST GROUP	VEHICLE CLASS(ES)	FUEL CATEGORY	FUEL TYPE
2020	LGMXD02.8360	MDV4	DEDICATED SINGLE FUEL VEHICLE	DIESEL

USEFUL LIFE (miles)		VEHICLE EMISSION CATEGORY		INTERIM / INTERMEDIATE IN-USE STD	
EXH/ORVR	EVAP	FTP	SFTP	FTP	SFTP
150000	*	LEV3 ULEV250	LEV3 ULEV (US06 BAG2, SC03, FTP TEST CYCLE)	*	*

	SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS	OBD STATUS		ENGINE DISPLACEMENT (L)
1	OC, SCRC, OC+DPF, DFI, TC, CAC, EGR, EGRC, NOXS(2), PMS, RDQS	FULL	*	2.8
2	OC, SCRC, OC+DPF, DFI, TC, CAC, EGR, EGRC, NOXS(2), PMS, RDQS, FFH	PARTIAL	*	
*	*	PARTIAL WITH FINES	ALL MODELS	

EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION

EVAP / ORVR FAMILY	EVAPORATIVE STD CATEGORY	EVAP EMISSION STD VEHICLE CLASS	SPECIAL FEATURES
*	*	*	*

EMISSION CREDIT INFORMATION

NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY	NMOG CREDIT FOR NON-PZEV ZERO-EVAP	NMOG CREDIT FOR DOR	OPTIONAL EXH. STD FOR WORK TRUCKS
N	N	N	N

NMOG AND FLEET AVERAGE INFORMATION

NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO	HCHO/NMHC RATIO	NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVW) + MDPV (g/mi)	NMOG+NOX FLEET STD MDV (8501-10000 GVWR) (g/mi)	NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)
*	*	*	*	*	0.228	0.349

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations. (As applicable, heavy-duty vehicles (HDV) over 14,000 pounds in GVWR listed in this Executive Order are certified to the requirements in 13 CCR Section 1961.2 applicable to MDV pursuant to 13 CCR Section 1956.8(c)(3) or 13 CCR Section 1956.8(h)(5), as applicable.)

BE IT FURTHER RESOLVED:
The exhaust and evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's fleet average compliance requirement for NMOG+NOx or Vehicle Equivalent Credit (13 CCR Sections 1961.2(b)(1), 1961.2(b)(3), or 1961.2(c)(3), and the incorporated test procedures, as applicable), or Greenhouse Gas Emissions (13 CCR Section 1961.3, or 17 CCR Section 95663, and the incorporated test procedures, as applicable), for PC, LDT, MDPV or MDV shall be equalized as required.

BE IT FURTHER RESOLVED:
For the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for PC, LDT and MDV).

BE IT FURTHER RESOLVED:
The vehicle models are conditionally certified in accordance with 13 CCR Section 1968.2(k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because the on-board diagnostic II (OBD) system of the listed vehicle models has been determined to have three (3) deficiencies. The listed vehicle models are approved subject to the manufacturer paying a fine of twenty five dollars ($25) per vehicle for the third deficiency in the listed test group that is produced and delivered for sale in California.
On a quarterly basis, the manufacturer shall submit to the Air Resources Board reports of the number of vehicles produced and delivered for sale in California and pay the full fine owed for that quarter pursuant to this conditional certification. Payment shall be made payable to the State Treasurer for deposit in the Air Pollution Control Fund no later than thirty (30) days after the end of each calendar quarter during the 2020 model-year production period. Failure to pay the quarterly fine, in full, in the time provided, may be cause for the Executive Officer to rescind this conditional certification, effective from the start of the quarter in question, in which case all vehicles covered under this conditional certification for that quarter and all future quarters would be deemed uncertified and subject to a civil penalty of up to $37,500 per violation per vehicle pursuant to HSC Section 43154.

BE IT FURTHER RESOLVED:
The fuel-fired heater incorporated in the listed vehicle models must not operate at ambient temperature above 40 °F (13 CCR Section 1961.2(a)(13) [Emission Standard for a Fuel-Fired Heater]).

Vehicles certified under this Executive Order shall 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 26th day of November 2019.

Allen Lyons, Chief
Emissions Certification and Compliance Division

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F, 20°F)

CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental FTP

	FUEL TYPE	NMHC+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	DIESEL-EPA	0.124	0.250	0.1	6.4	*	*	*	6	0.001	0.008
50°F @4K	*	*	*	*	*	*	*	*	*		

	FUEL TYPE	NMHC+NOx (g/mi)		CO (g/mi)	
		CERT	STD	CERT	STD
HWFET @ 50K	*	*	*		
HWFET @ UL	DIESEL-EPA	0.020	0.250		
20°F @ 50K	*			*	*

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	FUEL TYPE		US06			SC03		COMPOSITE		
			NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	*			
		STD	*	*		*	*			
@ UL	DIESEL-EPA	CERT	*	*	*	*	*	0.120	0.0	1
		STD	*	*	*	*	*	0.550	22.0	7
		BIN						*		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE	WHOLE VEHICLE EVAPORATIVE TESTING						RL (g/mi) @ UL	
		3DHS (g/test) @ UL			2DHS (g/test) @ UL				
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
*	*	*	*	*	*	*	*	*	*

ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL ONLY EVAP & CANISTER BLEED						
				FUEL TYPE	3DHS RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K	
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD
*	*	*	*	*	*	*	*	*	*	*

EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)

EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD
*	*	*	*

*: not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: LDT<6000#GVWR,3751-5750#LVW; LDT3: LDT 6001-8500#GVWR,3751-5750#ALVW; LDT4: LDT 6001-8500#GVWR,5751-8500#ALVW; MDV: medium-duty vehicle; MDV4: MDV 8501-10000#GVWR; MDV5: MDV 10001-14000#GVWR; MDPV: medium-duty passenger vehicle; HDV: heavy-duty vehicle; ECS: emission control system; CERT: certification; STD: standard; FEL: family emission limit; GVWR: gross vehicle weight rating; LVW: loaded vehicle weight; ALVW: adjusted LVW; LEV: low emission vehicle; ULEV: ultra LEV; SULEV: super ULEV; ZEV: zero-emission vehicle; TZEV: transitional ZEV; TWC/OC: 3-way/oxidizing catalyst; ADSTWC: adsorbing TWC; HAC: HC adsorbing catalyst; WU: warm-up catalyst; NAC: NOx adsorption catalyst; SCR-U or SCRC/SCR-N or SCRC-NH3: selective catalytic reduction-urea/ammonia; NH3OC: ammonia oxidation catalyst; CTOX/PTOX: continuous/periodic trap oxidizer; DPF: diesel particulate filter (active); GPF: PM filter for spark-ignited engine; HO2S/O2S: heated/oxygen sensor; WR-HO2S or AFS: wide range/linear/heated air-fuel ratio sensor; NOXS: NOx sensor; PMS: PM sensor; RDQS: reductant quality sensor; NH3S: ammonia sensor; EGR: exhaust gas recirculation; HP/LP EGR: High/Low Pressure EGR; EGRC: EGR cooler; AIR/AIRE: secondary air injection (belt driven)/(electric driven); PAIR: pulsed AIR; SFI/MFI: sequential/multiport fuel injection; DFI/IFI: direct/indirect fuel injection; TC/SC: turbo/super charger; CAC: charge air cooler; FFH: fuel fired heater; F/P/$: full/partial/partial with fines on-board diagnostic; DOR: direct ozone reducing; HCT: hydrocarbon trap; BCAN: bleed carbon canister; prefix 2: parallel; (2) suffix: series; a hyphen (-) between after treatment ECS indicates multiple functionalities of the after treatment device (ex. DPF-SCRC: SCR coated DPF); CNG/LNG: compressed/liquefied natural gas; LPG: liquefied petroleum gas; E85: "85%" ethanol ("15%"gasoline) fuel; E10: "10%" ethanol ("90%"gasoline) fuel; A: automatic (with lockup); M: manual transmission; SA: semi-automatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission; AER: all-electric range; EAER: equivalent AER; PHEV: plug-in hybrid electric vehicle; NMOG + NOx Fleet Ave. Credit for Extended Warranty: N = no credits, Y = credits, S = credits for some/select models

2020 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
CHEVROLET	G2500 EXPRESS 2WD CARGO	MDV4	2.8	A8	*	1	$
CHEVROLET	G2500 EXPRESS 2WD CARGO	MDV4	2.8	A8	*	2	$
CHEVROLET	G2500 EXPRESS 2WD PASS	MDV4	2.8	A8	*	1	$
CHEVROLET	G2500 EXPRESS 2WD PASS	MDV4	2.8	A8	*	2	$
CHEVROLET	G3500 EXPRESS 2WD CARGO	MDV4	2.8	A8	*	1	$
CHEVROLET	G3500 EXPRESS 2WD CARGO	MDV4	2.8	A8	*	2	$
CHEVROLET	G3500 EXPRESS 2WD PASS	MDV4	2.8	A8	*	1	$
CHEVROLET	G3500 EXPRESS 2WD PASS	MDV4	2.8	A8	*	2	$
GMC	G2500 SAVANA 2WD CARGO	MDV4	2.8	A8	*	1	$
GMC	G2500 SAVANA 2WD CARGO	MDV4	2.8	A8	*	2	$
GMC	G2500 SAVANA 2WD PASS	MDV4	2.8	A8	*	1	$
GMC	G2500 SAVANA 2WD PASS	MDV4	2.8	A8	*	2	$
GMC	G3500 SAVANA 2WD CARGO	MDV4	2.8	A8	*	1	$
GMC	G3500 SAVANA 2WD CARGO	MDV4	2.8	A8	*	2	$
GMC	G3500 SAVANA 2WD PASS	MDV4	2.8	A8	*	1	$
GMC	G3500 SAVANA 2WD PASS	MDV4	2.8	A8	*	2	$