

GENERAL MOTORS LLC.

Executive Order: A-006-2178

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

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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-14-012;

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 GRO	UP INF	ORMA	ATION				
MODE YEAR	- 1 т	EST GROUP		VEHIC	LE CLASS(E	S)	FUEL CATEGORY			FUEL TYPE		
2019	KG	MXT02.7100			LDT3		DE		SINGLE FUEL	GASOLINE		
USEFUL LIFE (miles) VEHICLE EMISSION CATEGORY				INTERIM / IN	TERM	EDIATE IN-USE STD						
EXH	I/ORVR	EVAP			FTP		SFTP	•	FTP		SFTP	
15	0000	150000)	LEV3	ULEV50	LEV 3	COM	POSITE	NMOG+NOX AN	D PM	PM	
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS					L		OBD S	TATUS	EN	GINE DISPLACEMENT (L)		
1	1 DFI, TWC, 2HO2S, TC, CAC						FI	ULL	*	1		
*	* *						PARTIAL ALL MODELS 2.7			2.7		
*	* *						AL WITH *					
		E,	/APO	RATIVE &	REFUELING	(EVAP	/ORVF	R) FAMILY	INFORMATION	V		
EVA	P / ORV	R FAMILY	EVA	PORATIVE	E STD CATE	GORY	DRY EVAP EMISSION STD VEHICLE CLASS			SP	SPECIAL FEATURES	
F	KGMXR01	7350D		LEV 3	OPTION2			LD	т3		HCT	
					EMISSION CI	REDITI	NFOR	MATION				
	EDIT FO	X FLEET AVE. OR EXTENDED RRANTY			REDIT FOR N ZERO-EVAP	ON-PZE	EV	NMOG C	REDIT FOR DO		OPTIONAL EXH. STD FOR WORK TRUCKS	
		N			N				N		N	
				NMOG	AND FLEET	AVER	AGE II	NFORMA	TION			
NMOG RAF	NIMOCIAIMEC				0-3750	750 LVW) LDT (3751 LVW-85		(3751 LVW-850)	MDV (10,001-14,000		
*	*	1.10		*	0	.072			0.083		*	

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.)



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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).

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

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division



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ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUS	EMISSION ST	4: methane: NMOG: non-CH4 organic gas: HC: hydrocarbon: NMHC: non-CH4 HC:		20°F)			
	CH4: methane	NMOG: non-CH4	organic gas: F	C. hydrocarbon.	NMHC: non-CH4	HC: CO: car	

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

k 1		NMOG+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	GASOLINE- TIER3 E10	0.026	0.050	0.3	1.7	*	*	1.	4	0.001	0.003	
50°F @4K	GASOLINE- TIER3 E10	0.035	0.100	1.0	1.7	*	*	-	16			

	FUEL TYPE	NMOG+N	lOx (g/mi)	CO	g/mi)
	FUEL TYPE	CERT	STD	CERT	STD
HWFET @ 50K	* */		*.		
HWFET @ UL	GASOLINE-TIER3 E10	0.005	0.050		
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)		1 1	0.8	12.5

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

		US06				SC03	3	COMPOSITE		
	FUEL TYPE		NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT		•	17	*.	*	UP G		
		STD		*		*	*			
		CERT		*	1	*	*	0.016	1.3	*
@ UL	GASOLINE- TIER3 E10	STD	*	*	6	*	*	0.090	4.2	*
		BIN						0.070		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE		WHOLE						
		3DHS (g/test) @ UL			2D	HS (g/test) @	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
KGMXR017350D	GASOLINE- TIER3 E10	0.198	0.500	.*	0.200	0.500	*	0.00	0.05

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

				FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			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			
KGMXR017350D	E10-EPA	0.02	0.20	GASOLINE- TIER3 E10	*	*	*	*	0.008	0.020			



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EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)								
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD					
KGMXR017350D	KGMXR017350D-LK1	*	0.02					

the notapplicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: LDT<6000#GWR,3751-5750#LWW; LDT3: LDT 6001-8500#GWR,3751-5750#ALVW; LDT4: LDT 6001-8500#GWR,5751-8500#ALVW; MDV: medium-duty vehicle; MDV4: MDV 8501-10000#GVWR; MDV5: MDV 10001-14000#GVWR; MDPV: mediumduty passenger vehicle; HDV: heavy-duty vehicle; ECS: emission control system; CERT: certification; STD: standard; FEL: family emission limit; GWWR: 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; HQ2S/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; 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; 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

	2019 MODEL YEAR: VEHICLE MODELS INFORMATION											
MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD					
CHEVROLET	C10 SILVERADO 2WD	LDT3	2.7	A8	KGMXR017350D	1	P					
CHEVROLET	K10 SILVERADO 4WD	LDT3	2.7	A8	KGMXR017350D	1	P					
GMC	C10 SIERRA 2WD	LDT3	2.7	A8	KGMXR017350D	1	P					
GMC	K10 SIERRA 4WD	LDT3	2.7	A8	KGMXR017350D	1	P					