

#### GENERAL MOTORS LLC.

Executive Order: A-006-2267-1
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-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											
MODI		EST GROUP		VEHICLE CLASS(ES)				FUEL CATEGORY			FUEL TYPE	
202	2021 MGMXV02.7105 PC							DEDICATED SINGLE FUEL VEHICLE			GASOLINE	
	USEFUL	LIFE (miles)		VEH	IICLE EMISS	ION (	N CATEGORY INTERIM / INTERMEDIA			IEDIATE IN-USE STD		
EXI	H/ORVR	EVAP			FTP		SF	TP	FTP		SFTP	
1	50000	150000		LEV3	ULEV50	LEV	3 C	OMPOSITE	PM		PM	
SPI	ECIAL FE	EATURES & EXI	IAUS		ON CONTRO	L		OBD S	TATUS	EN	GINE DISPLACEMENT (L)	
1	D	FI, TC, CAC,	TWC	, WR-H02	S, HO2S			FULL	ALL MODELS	11		
*			*			$\neg$	F	PARTIAL	*	1	2.7	
*	* *						PAR	RTIAL WITH FINES	*	1		
		EV	'APO	RATIVE &	REFUELING	(EVA	P/OF	RVR) FAMILY	/ INFORMATIO	V		
EV	AP / ORV	R FAMILY	EVA	PORATIVE	STD CATE	D CATEGORY EVAP EMISSION STD VEHICLE CLASS SPECIAL			PECIAL FEATURES			
3	MGMXR01	.103AA	LI	EV 3 OPTI	ON2 WITH	N2 WITH FEL PC			HCT			
				1	EMISSION CI	REDIT	r INF	ORMATION				
	REDIT FO	X FLEET AVE. OR EXTENDED RRANTY			REDIT FOR N ZERO-EVAP	ON-P	ZEV	NMOG C	REDIT FOR DO	9	OPTIONAL EXH. STD FOR WORK TRUCKS	
N N								N		N		
	NMOG AND FLEET AVERAGE INFORMATION											
NMOG CH4 RAF NMOG/NMHC RATIO HCHO/NMHC RATIO NMOG+NOX FL PC+LDT (0-378 (g/mi)				0-375		V) LDT	+NOX FLEET S (3751 LVW-8500 R) + MDPV (g/m		MOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)			
*	*	1.10		*	0	.058			0.065		*	

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.

This Executive Order hereby cancels and supersedes Executive Order A-006-2267 dated June 15, 2020.

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

Executed on this 19th day of November 2020.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 



**FUEL TYPE** 

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# **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: carbor

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

		I									
		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 PREM	0.020	0.050	0.4	1.7	*	*	*	4	0.001	0.003
50°F @4K	*	*	*	*	*	*	*	*	*		

	FUEL TYPE	NMOG+N	Ox (g/mi)	CO (g/mi)		
	FOEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-TIER3 E10 PREM	0.002	0.050			
20°F @ 50K	COLD CO E10 PREMIUM GASOLINE (TIER3)			1.5	10.0	

## SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC0	3	COM	IPOSITE	
	FUEL TYPE		NMOG+NOx	СО	PM	NMOG+NOx	СО	NMOG+NOx	CO	PM
			(g/mi)	(g/mi)	(mg/mi)	(g/mi)	(g/mi)	(g/mi)	(g/mi)	(mg/mi)
@ 4K	*	CERT	*	*		*	*			
		STD	*	*		*	*			
		CERT	*	*	1	*	*	0.026	0.6	*
@ UL	GASOLINE- TIER3 E10 PREM	STD	*	*	6	*	*	0.077	4.2	*
		BIN						0.070		

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE		WHOLE \							
		3DHS (g/test) @ UL			2DI	HS (g/test) (	RL (g/mi) @ UL			
			CERT	STD	FEL	CERT	STD	FEL	CERT	STD
	MGMXR01103AA	GASOLINE- TIER3 E10	0.211	0.300	0.300	0.251	0.300	0.300	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		
MGMXR01103AA	GASOLINE- TIER3 E10	0.05	0.20	GASOLINE- TIER3 E10	*	*	*	*	0.009	0.020		



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EFFECTI\	EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)								
EVAPORATIVE FAMILY LEAK FAMILY		CERT	STD						
MGMXR01103AA	MGMXR01103AA-LK1	*	0.02						

\*: 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: mediumduty 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

## 2021 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	
CADILLAC	CT4	PC	2.7	SA10	MGMXR01103AA	1	F	
CADILLAC	CT4 AWD	PC	2.7	SA10	MGMXR01103AA	1	F	
CADILLAC	CT4 V	PC	2.7	SA10	MGMXR01103AA	1	F	
CADILLAC	CT4 V AWD	PC	2.7	SA10	MGMXR01103AA	1	F	