

GENERAL MOTORS LLC.

Executive Order: A-006-2187

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.

MODEL TEST GROUP VEHICLE CLASS(ES) FUEL CATEGORY FUEL TYPE		TEST GROUP INFORMATION												
YEAR	MODE					IESI GRU	IN	IFUK	WIATION		г			
USEFUL LIFE (miles)			EST GROUP		VEHIC	VEHICLE CLASS(ES)			FUEL CATEGORY			FUEL TYPE		
EXH/ORVR EVAP FTP SFTP FTP SFTP 150000 150000 LEV3 ULEV70 LEV 3 COMPOSITE * PM SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS DFI,2TWC,2HO2S(2),TWC FULL * PARTIAL ALL MODELS PARTIAL WITH FINES EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY VEHICLE CLASS LGMXR013835A LEV 3 OPTION2 WITH FEL LDT2 HCT EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. S FOR WORK TRUCK NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. S FOR WORK TRUCK NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. S FOR WORK TRUCK NMOG CREDIT FOR DOR OPTIONAL EXH. S F	2020	LG	MXT03.6162		LD	T2, LDT3					GASOLINE			
150000 150000 LEV3 ULEV70 LEV 3 COMPOSITE * PM SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS DEFI (2 TWC , 2 Ho 2 S (2) , TWC FULL * PARTIAL ALL MODELS 3 . 6 PARTIAL WITH FINES * EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY VEHICLE CLASS SPECIAL FEATURES LGMXR013835A LEV 3 OPTION2 WITH FEL LDT2 HCT EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. SERON FOR WORK TRUCK N NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. SERON FOR WORK TRUCK N N N N N N N N		USEFUL	. LIFE (miles)		VEH	IICLE EMISS	ION C	ATE	ATEGORY INTERIM / INTERMEDIATE IN-USE					
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS DBD STATUS ENGINE DISPLACEM (L) FULL PARTIAL ALL MODELS 3.6 PARTIAL WITH FINES EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY EVAP EMISSION STD VEHICLE CLASS LGMXR013835A LEV 3 OPTION2 WITH FEL EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY N NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. S FOR WORK TRUCK	EXH	H/ORVR	EVAP			FTP		SF	TP	FTP		SFTP		
SYSTEMS	15	50000	150000)	LEV3	ULEV70	LEV	3 CC	OMPOSITE	*		PM		
*							L		OBD S	TATUS	EN	NGINE DISPLACEMENT (L)		
* * * * * * * * * * * * * * * * * * *	1	1 DFI,2TWC,2HO2S(2),TWC							FULL	*				
EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION EVAP / ORVR FAMILY	*	* *						Р	PARTIAL ALL MOI			3.6		
EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY LGMXR013835A LEV 3 OPTION2 WITH FEL EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. SFOR WORK TRUCK	* *						1		*					
LGMXR013835A LEV 3 OPTION2 WITH FEL EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG NOW STREET AVE. CREDIT FOR EXTENDED WARRANTY NMOG NOW STREET AVE. NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. SFOR WORK TRUCK	EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION													
EMISSION CREDIT INFORMATION NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR OPTIONAL EXH. S FOR WORK TRUCK N N N N	EVA	AP / ORV	RFAMILY	EV	'APORATIVE	STD CATE	GORY				SI	PECIAL FEATURES		
NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV ZERO-EVAP NMOG CREDIT FOR DOR FOR WORK TRUCK N N	:	LGMXR01	3835A	1	LEV 3 OPTI	ON2 WITH	N2 WITH FEL LDT2				HCT			
CREDIT FOR EXTENDED WARRANTY NMOG CREDIT FOR NON-PZEV NMOG CREDIT FOR DOR FOR WORK TRUCK N N N N				-	E	MISSION C	REDIT	INFO	DRMATION					
	CREDIT FOR EXTENDED NMOG CREDIT FOR NON-PZEV NMOG CREDIT FOR DOR COPTIONAL EX							OPTIONAL EXH. STD FOR WORK TRUCKS						
	N N							n n						
NMOG AND FLEET AVERAGE INFORMATION														
NMOG RAF RAF RAF RATIO NMOG+NOX FLEET STD NMOG+NOX FLEET STD NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi) GVWR) (g/mi)		G CH4 NMOG/NMHC HCHO/NMHC PC+LDT (0-37		0-375		V) LDT	LDT (3751 LVW-8500		MDV (10,001-14,000					
* * 1.10 * 0.065 0.074 *	*	*	1.10		*	0	.065			0.074		*		

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 _______

Allen Lyons, Chief

Emissions Compliance, Automotive Regulations and Science Division



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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: 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

96 1	, j		G+NOx mi)		O mi)		Ox mi)	HC (mg	HO /mi)	P) (g/i		
	-	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
FTP@50K	*	*	*	*	*	*	*	*	*	*	*	
FTP@UL	GASOLINE- TIER3 E10	0.060	0.070	0.6	1.7	*	*	*	4	0.002	0.003	
50°F @4K	*	*	*	*	*	*	*	*	*	1.00 % 13	HOLDER	

	FUEL TYPE	NMOG+N	lOx (g/mi)	CO (g/mi)		
r 3	FOEL TIPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-TIER3 E10	0.015	0.070	14000		
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)	er yng gerellewer en e'r yn 28	of the amount of the con-	1.8	12.5	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	子言 矣 。				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	*	*		*	*			
		STD	*	*		*	*			
		CERT	*	*	1.6	*	*	0.0596	1.12	*
@ UL	GASOLINE- TIER3 E10	STD	* ,	*	6	*	*	0.083	4.2	*
		BIN						0.080		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE \	/EHICLE	EVAPORA	TIVE TESTI	NG -		
EVAPORATIVE FAMILY	FUEL TYPE	3DH	S (g/test) (@ UL	2DI	HS (g/test) (RL (g/mi) @ UL		
	4	CERT	STD	FEL	CERT	STD	FEL	CERT	STD
LGMXR013835A	GASOLINE- TIER3 E10	0.257	0.400	0.400	0.340	0.400	0.400	0.00	0.05

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

	ORVR (g/gallon) @ UL			FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY				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		
LGMXR013835A	GASOLINE- TIER3 E10	0.02	0.20	GASOLINE- TIER3 E10	*	*	*	*	0.006	0.020		



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EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)									
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD						
LGMXR013835A	LGMXR013835A-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; 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; 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	COLORADO ZR2 4WD	LDT2	3.6	A8	LGMXR013835A	1	P
CHEVROLET	COLORADO ZR2 4WD	LDT3	3.6	A8	LGMXR013835A	1	P