## California Environmental Protection Agency

**⊘** Air Resources Board

GENERAL MOTORS LLC. Executive Order: A-006-2098-1
New Passenger Cars, Light-Duty Trucks and
Medium-Duty Vehicles
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Pursuant to the authority vested in the 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: 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 GROU	JP IN	FORMAT	ION					
MODE		EST G	ROUP	VEHICI	LE CLASS(ES	)		FUEL C	ATE	GORY	FUEL TYPE		
2018	JG	MXV01	1.8050			HYBRID ELECTRIC VEHICLE			1	GASOLINE			
	USEFUL	LIFE	(miles)	VEH	ICLE EMISSION	ON C	ATEGOR	Y	IN	TERIM / INTI	RMEDIA	TE IN-USE STD	
EXH	/ORVR		EVAP	VAP FTP				TP FTP			SFTP		
12	0000		150000	TRANS	A TIER3 SITIONAL COUNTED LEV2 ULEV		EV 2 SF			*	. *		
SPECIAL FEATURES & EXHAUST EMISSION CONTROL OBD STATUS						JS	ENGINE DISPLACEMENT						
1	1 DFI, TWC, HO2S(2), EGR, EGRC						FUI	LL		*			
*				* .		PART	ΓIAL	ALL MODELS		1.8			
*		*						ARTIAL WITH *					
			EV	APORATIVE &	REFUELING (	EVA	P/ORVR)	FAMILY	INF	ORMATION			
EVA	P / ORV	R FAI	MILY	EVAPORATIVE	STD CATEG	ORY	RY EVAP EMISSION STD VEHICLE CLASS				SPECIAL FEATURES		
c	JGMXR01	10281	5	L	EV 2			P	C			*	
i	JGMXR01	11087	5	L	EV 2			P	C			*	
			-		EMISSION CR	EDIT	INFORM	IATION					
	A	LLOW	VANCE FO	R TEST GROU	Р	N	NMOG CREDIT FOR NON-PZEV ZERO-EVAP		OR NMOG CRE		DIT FOR	OPTIONAL EXH	
BASE	ELINE P	ZEV	AT	PZEV	TZEV	NO			DO	R	STD FOR WORK TRUCKS		
	* * *					1	N		N		N		
				NMOG	AND FLEET	AVE	RAGE IN	FORMAT	TION				
NMOG RAF	CH4 RAF		FTP MOG/NMHC RATIO  HCHO/NMHC PC+LDT (0-		-3750	3750 LVW) LDT		MOG+NOX FLEET STD LDT (3751 LVW-8500 VWR) + MDPV (g/mi)		MDV	NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)		
*	*		1.04	*	0.079			0.092			*		

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.

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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 NMOG+NOx and greenhouse gas Fleet Average (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan 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 listed vehicle models are federally certified, and are certified under the provisions of 13 CCR Section 1961.2(a)(12) and the incorporated test procedures.

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

This Executive Order hereby supersedes Executive Order A-006-2098 dated May 19, 2017.

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

Executed at El Monte, California on this

1+0/

day of August 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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## **ATTACHMENT**

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LE	SSION STANDARDS AND CERTIFICATION LEVE	ND EVAPORATIVE EMISSION	EXHAUST AND
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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**

		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 - TIER 2 UNLEADED	0.061	0.110	0.5	2.1	*	*	*	4	*	0.010
50°F @4K	*	*	*	*	*	*	*	*	*	-	

11 11 11 11 11 11		NMOG+I	NOx (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.013	0.110			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE		v. 1	1.7	10.0	

# SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

		79 Jenn 174 - 172		US06		SC03	3	CON	POSITE	
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	GASOLINE - TIER 2 UNLEADED	CERT	0.03	0.4		0.10	1.0	The state of the s		1
		STD	0.14	8.0	1 304 3	0.20	2.7		-13	
		CERT	*	*	*	*	*	0.066	*	*
@ UL	GASOLINE - TIER 2 UNLEADED	STD	*	*	*	*	*	0.097	*	*
		BIN		4				0.110		

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE						
EVAPORATIVE FAMILY	FUEL TYPE	3DHS	(g/test)	@ UL	2DF	IS (g/test) @	D UL	RL (g/m	ii) @ UL
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
JGMXR0102815	GASOLINE - TIER 2 UNLEADED	0.3460	0.50	*	0.3660	0.65	*	0.000	0.05
JGMXR0110875	GASOLINE - TIER 2 UNLEADED	0.346	0.50	*	0.366	0.65	* *	0.00	0.05

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ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS												
				FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/g	gallon) @	) UL	FUEL TYPE		IG TEST ) @ UL		IG TEST ) @ UL		ANISTER est) @ 4K		
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
JGMXR0102815	GASOLINE - TIER 2 UNLEADED	0.023	0.20	*	*	*	*	*	*	*		
JGMXR0110875	GASOLINE - TIER 2	0.15	0.20	*	*	*	*	*	*	*		

\*: 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; GWR: gross vehicle weight rating; LWV: loaded vehicle weight; ALVW: adjusted LWV; LEV: low emission vehicle; ULEV: ultra LEV; SULEV: super ULEV; ZEV: zero-emission vehicle; PZEV: partial ZEV; AT PZEV: advanced technology PZEV; 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: semiautomatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission

	2018 MODEL YEAR: VEHICLE MODELS INFORMATION											
MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE				
CHEVROLET	MALIBU	PC	1.8	CV	JGMXR0102815	1	P	*				
CHEVROLET	MALIBU	PC	1.8	CV	JGMXR0110875	1	P	*				