## California Environmental Protection Agency

**⊘** Air Resources Board

GENERAL MOTORS LLC. Executive Order: A-006-2107

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 GR	OUP IN	FORMAT	TION					
MODE		EST G	ROUP	VEH	IICLE CLASS(I	ES)		FUEL C	ATE	FUEL TYPE			
2018	JG	MXV01	.5020		PC		PLUG-IN HYBRID ELECTRIC VEHICLE			GASOLINE			
-	USEFUL	LIFE	(miles)	V	EHICLE EMIS	SION C	ATEGOR	RY	IN	TERIM / INT	ERMEDIA	TE IN-USE STD	
EXH	/ORVR		EVAP	FTP			SFTP			FTP	SFTP		
150000 150000				LE	V3 ULEV125	LEV 3 COMPOSITE		SITE	*		*		
SPE	CIAL FE	ATUR		HAUST EMIS	SION CONTRO	DL		OBD ST	TATL	JS	ENGINE	DISPLACEMENT (L)	
1		DFI,	R, HO2S (2	), EGRC	4	FULL		*					
*				*			PARTIAL			L MODELS	1.5		
*				*			PARTIA FIN	*					
			EV	APORATIVE	& REFUELING	G (EVA	P/ORVR)	FAMILY	INF	ORMATION			
EVA	P / ORV	R FAN	MILY	EVAPORAT	IVE STD CATE	GORY	DRY EVAP EMISSION VEHICLE CLAS				SPECIAL FEATURES		
J	GMXR00	60600	)		LEV 2	LEV 2			С		HCT		
			•		EMISSION C	REDIT	INFORM	IATION					
	A	LLOW	ANCE FO	R TEST GR	OUP		NMOG CREDIT FOR			1		OPTIONAL EXH.	
BASE	ELINE P	ZEV	AT	PZEV	TZEV	TZEV NON-PZEV ZERO-E			VAP	DO	TRUCKS		
	*			*	*	* N			N			N	
				NM	OG AND FLEE	TAVE	RAGE IN	FORMAT	ION				
NMOG RAF	CH4 RAF	NMO	FTP G/NMHC ATIO	HCHO/NMHC RATIO NMOG+NOX PC+LDT (0-3 (g/n			3750 LVW) LD1		OG+NOX FLEET STD DT (3751 LVW-8500 VWR) + MDPV (g/mi)		NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)		
*	*	1.10 *				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 for PC, LDT and MDV).

#### BE IT FURTHER RESOLVED:

Evaporative family JGMXR0060600 is certified pursuant to 13 CCR Section 1976(b)(1)(G)3 and deemed to comply with the requirements of 13 CCR Section 1976(b)(1)(G)1 ["LEV III evaporative requirements"].

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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							A	TAC	НМ	ENT							
	EXHA	UST	AND	EVA	POR	ATIVE	EMIS	SION S	ATA	IDAR	S AND	CERT	FIC	ATION	LEVELS		
		EXH	AUST E	NISS	ION S	TANDA	RDS AN	ID CERT	TIFIC/	ATION L	EVELS	(FTP, HW	FET	, 50°F, 20°	°F)		
	FUE	FUEL TYPE		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													
				NMO(			CO (g/mi)			NOx (g/mi)		HCF (mg/			P (g/i		
	A STATE OF THE STA		CERT				CERT	STE		CERT STE		CERT		STD	CERT	STD	
FTP@5	* *			* '		*	*	*		*	. *	*		*	* *		
FTP@U	11	GASOLINE- LEV3 E10		1 0 026		.125	0.15	2.1	L	*	*	*		4	* 0.		
50°F @4	4K	*		*		*	*	*		*	*	*		*	Marine W	- Pus	
				FUEL TYPE						NMOG+NOx		,,			CO (g/mi)		
	1%									-	RT	STD		CERT		STD	
HWFET	HWFET @ 50K			*							* * *						
HWFE	T@UL			GASOLINE-LEV3 E10					0.0038 0.125								
20°F	@ 50K	C	OLD CO	<b>E10</b>	REGU	LAR GA	SOLINE	(TIER	(3)					1.6		10.0	
			SF	TP E	XHAL			STANDA	ARDS	AND C		ATION LI	EVE				
		<b></b>		NMOG+NOX CO PM					SC03			COMPOSITE NMOG+NOx CO PM					
	FUEL T	YPE		NMOG+NOx (g/mi)		CO (g/mi)			(g/mi)		CO (g/mi)	(g/mi)		(g/mi)	(mg/mi)		
@ 4K	*	* CE		*		*			*		*	And the second		A the second			
					*	_	*			-	*		3				
@ UL		GASOLINE- LEV3 E10			*		* *		r 	*		*	0.0140		0.14	*	
					*		*	1	*		*	*	0.097		4.2	*	
			BIN					,		1 3		de la		0.120			
		W	OLE VE	HICL	EEV								ATIC	N LEVEL	S		
				WHOLE VEHICLE EVAP						PORATI	VE TEST	TING	RL (g/mi) @ UL				
FAMILY		FILE LABE		TYPE 3DHS (g.			/test) @ UL		2DHS	@ UL	@ UL		ILE (g/IIII) @ OL				
					CERT S		TD FEL		CE	ERT STD		FEL		CER	Т	STD	
JGMXR0060600		1 1	CA PHASE 2		0.18 0.		.35			17 0.35		*			.000 0.09		
(	ORVR / F	UEL	ONLY / C	CANI	STER	BLEED	EVAPO	PRATIVE	_					RTIFICAT		ELS	
	EVAPORATIVE		E ORVR (g/gal		(g/gallon) @ UL			31					CANISTER BLEE DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K		
FAMILY		FUEL TYPE		E C	CERT STD		FUEL TYPE		-	(g/test) @ UL ERT STD		(g/test)		STD CERT		st) @ 4K STD	
JGMXR0060600		GA	SOLINE TIER 2	-	-		GASOLINE -			.04	0.0	*		0.0	*	*	

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\*: 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; GWWR: gross vehicle weight rating; LWW: loaded vehicle weight; ALVW: adjusted LVW; 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 **ENGINE EVAPORATIVE EXH** VEH CLASS TRANS TYPE OBD MAKE MODEL **PZEV TYPE** (L) **FAMILY ECS** CHEVROLET VOLT PC 1.5 CV JGMXR0060600 1 P