California Environmental Protection Agency

⊘ Air Resources Board

GENERAL MOTORS LLC. Executive Order: A-006-1979

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 GROUP INFORMATION												
MODEL YEAR	1	TEST G	ROUP		VEHICLE	CLASS(E	S)	FUEL CATEGORY				FUEL TYPE	
2016	G	GMXV01	.8031			PC DEDICATED SINGLE FUEL GASOL					OLINE		
US	EFU	L LIFE	(miles)		VEHIC	CLE EMISS	ION CAT	EGORY	IN	ITERIM / IN	TERMED	IATE	IN-USE STD
EXH/O			EVAP		F1	ГР	5	FTP		FTP			SFTP
1500	000		15000	0	LEV3 S	ULEV30	LEV 3	COMPOSITE		*		N	MOG+NOX
SPECI	AL F	EATUR		(HAUST	EMISSION	N CONTRO	L	OBD S	TAT	Js	ENGI		SPLACEMENT (L)
1		TWO	(2), H	io2s (2) ,	AIR, S	FI		FULL	AL	L MODELS			
*				*				PARTIAL		*			1.8
*				*		PARTIAL WITH *							
			E	VAPORA	TIVE & R	EFUELING	(EVAP/C	RVR) FAMIL	Y INF	ORMATION	l		
EVAP	/ OR	VR FAN	ILY	EVAPO	RATIVE	STD CATE	SORY	EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES		
GGI	MXR0	095700)		LEV	v 2		I	PC			1	*
GGI	MXR0	117704	1		LEV	v 2		I	PC			,	*
				4	ΕM	VISSION CI	REDIT IN	FORMATION					
		ALLOW	ANCE F	OR TEST	T GROUP		1	G CREDIT FO		NMOG CR	EDIT FO	10 1	PTIONAL EXH. TD FOR WORK
BASEL	INE	PZEV	A	T PZEV		TZEV		EVAP			JK .		TRUCKS
ALL	MODE	ELS		*		*		N		1	4		N
					NMOG A	AND FLEET	AVERA	GE INFORMA	TION	I			
NMOG R	AF	CH4 RA	AF FT		NMOG/NMHC HCHO/NMHC			RATIO NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)		NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)			
*		*		1.10)		k		0.0	93		0	.110

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:

Evaporative families GGMXR0095700 and GGMXR0117704 are 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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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

		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- LEV3 E10	0.0183	0.030	0.17	1.0	*	*	*	4	*	0.01
50°F @4K	*	*	*	*	*	*	*	*	*		

	FUEL TYPE	NMOG+	NOx (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*		*			
HWFET @ UL	GASOLINE-LEV3 E10	0.0021	0.030			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	10/1/200		0.64	10.0	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

Service Co.	-			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)
0.41/		CERT	*	* .		*	*			
@ 4K		STD	*	*		*	*			
		CERT	*		*	*	*	0.018	1.11	*
@ UL	GASOLINE- LEV3 E10	STD	*	. *	*	*	*	0.110	4.2	*
	DE VS EIO	BIN						0.050	VI 1.5	the second

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVADODATIVE			WHOLE	RL (g/mi) @ UL					
EVAPORATIVE	FUEL TYPE	3DHS	(g/test)	@ UL	2Dł	HS (g/test) @	KE (gilli) @ OE		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
GGMXR0095700	GASOLINE-CA PHASE 2	0.320	0.35	*	0.314	0.35	*	0.000	0.05
GGMXR0117704	GASOLINE-CA PHASE 2	0.320	0.35	*	0.314	0.35	*	0.000	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/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	T BLEED C. TEST (g/tc) CERT *	STD			
GGMXR0095700	GASOLINE - TIER 2 UNLEADED	0.007	0.20	GASOLINE - CA PHASE 2	0.04	0.0	0.04	0.0	*	*			
GGMXR0117704	GASOLINE - TIER 2 UNLEADED	0.025	0.20	GASOLINE - CA PHASE 2	0.04	0.0	0.04	0.0	*	*			

*: 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; 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; 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 sparkignited 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; 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

2016 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
CHEVROLET	CRUZE LIMITED	PC	1.8	M6,SA6	GGMXR0117704	1	F	PZEV
CHEVROLET	SONIC	PC	1.8	M5,SA6	GGMXR0095700	1	F	PZEV
CHEVROLET	SONIC 5	PC	1.8	M5,SA6	GGMXR0095700	1	F	PZEV