## California Environmental Protection Agency

**OP Air Resources Board** 

GENERAL MOTORS LLC. Executive Order: A-006-2017

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 GRO	UP	NFO	RMATION						
MOD		TEST G	ROUP	\	VEHICLE CLASS(ES)				FUEL CATEGORY			FUEL TYPE			
201	.6	GGMXV0	5.0082			PC			FLEX-FU	EL V FFV)		85% I	ETHA	HANOL, GASOLINE	
	USEF	UL LIFE	(miles)		VEHI	CLE EMISS	ION	CATE	GORY	IN	ITERIM / IN	ERME	DIA	TE IN-USE STD	
EX	H/ORV	R	EVAP		F	ТР		S	FTP		FTP			SFTP	
1	120000 150000		11	OUNTED	AS ARR I		2 SFTP *		*		*				
SP	ECIAL	FEATUR		HAUST EI	/ISSIOI	N CONTRO	L		OBD S	TAT	JS	ENG	SINE	DISPLACEMENT (L)	
1		2	TWC(2),	2HO2S (2	), SF	I			FULL	ALL MODELS		1			
*				*		1.1			PARTIAL	*		6.0			
*		,		*				PA	RTIAL WITH FINES	*					
			E۱	/APORAT	VE & R	EFUELING	(EV	AP/O	RVR) FAMILY	INF	ORMATION				
EV	AP / OF	RVR FA	MILY	EVAPOR	ATIVE	STD CATE	GOR	RY EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES				
	GGMXR	0133880	0		LE	V 2	PC				HCT				
					El	MISSION CI	RED	IT INF	ORMATION		· · · · · · · · · · · · · · · · · · ·				
BAS	SELINE			PZEV	ROUP	TZEV	N	NMOG CREDIT FOR NMOG CREDIT F			OR	OPTIONAL EXH. STD FOR WORK TRUCKS			
	* * * N N				T		N								
					NMOG /	AND FLEET	AV	ERAG	E INFORMA	TION	l				
NMO	G RAF	CH4 RA		NMOG/N IO (GASO		HCHO/NM (GASC		C RATIO PC+LD		+NOX FLEET STD DT (0-3750 LVW) (g/mi)		NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)			
	*	*		1.04			*			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).

day of December 2015.

#### 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.

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
EXHAUGT ENICCION CTANDADDS AND CEDTIFICATION I EVELS (ETD LIMEET FOR 200E)

EXHAUS	STEMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50 F, 20 F)	
	CH4: methane: NMOG: non-CH4 organic gas: HC: hydrocarbon: NMHC: non-CH4 HC: CO: carb	00

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**

Contraction of Contract of													
		NMOG (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	E85-EPA (GASOLINE - TIER 2 UNLEADED)	0.0368 (0.0269)	0.070 (0.070)	0.58	2.1 (2.1)	0.015	0.04	1.0	11 (11)	* (*)	0.01 (0.01)		
50°F @4K	*	*	*	*	*	*	*	*	*				

		NOx	(g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	E85-EPA (GASOLINE - TIER 2 UNLEADED)	0.003	0.05 (0.05)			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE			3.43	10.0	

# SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC0	3	CON	<b>IPOSITE</b>	
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
	GASOLINE	CERT	0.038	0.20		0.013	0.32	<b>建立这个学</b>		
@ 4K	- TIER 2 UNLEADED	STD	0.14	8.0		0.20	2.7			
		CERT	*	*	*	*	*	*	*	*
@ UL	*	STD	*	*	*	*	*	*	*	*
		BIN					<b>国实现</b>	*		2000 mg st. 128

## WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

		WHOLE VEHICLE EVAPORATIVE TESTING								
EVAPORATIVE FAMILY	FUEL TYPE	3DHS	S (g/test)	@ UL	2DI	HS (g/test) (	RL (g/mi) @ UL			
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	
GGMXR0133880	E10-EPA	0.25	0.50	*	0.30	0.65	*	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		
GGMXR0133880	GASOLINE - TIER 2 UNLEADED	0.01	0.20	*	*	*	*	*	*	*		

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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; 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 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; 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 **ENGINE EVAPORATIVE VEH CLASS** TRANS TYPE OBD **PZEV TYPE** MAKE MODEL (L) FAMILY **ECS** GGMXR0133880 CHEVROLET CAPRICE PPV PC 6.0 **A6** 1 F