# California Environmental Protection Agency California Environmental Protection Agency California Environmental Protection Agency

### **GENERAL MOTORS LLC**

**EXECUTIVE ORDER A-006-2043** 

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 1 of 4

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.

granted.											
			TEST	GROUP INFORMA	ATION						
MODEL YEAR	TEST GRO	UP VEHIC	CLE CLASS(ES)	FUE	L CATEGORY		FUEL TYPE				
2017	HGMXV01:4	001	PC		ED SINGLE FUE VEHICLE	L	GASOLINE				
	USEFUL LIF	E (miles)	VEHICLE E	MISSION CATEG	ORY	INTERIM	/ INTERME	EDIATE IN-USE STD			
EXH/C	RVR	EVAP	FTP	S	FTP	FTP		SFTP			
120,	000	150,000	USEPA TIER3 BIN COUNTED AS AF LEV2 ULEV		PSTANDARD	*		*			
SPECIAL I	EATURES &	EXHAUST EMISSION	CONTROL SYSTEMS		OBD STATUS		ENGIN	IE DISPLACEMENT (L)			
1	TWO	C(2), HO2S(2), DFI, TC	C, CAC	FULL	*						
*		*		PARTIAL	DELS	S 1.4					
*		*		PARTIAL WITH FINES	*						
		E	VAPORATIVE & REFUEL	ING (EVAP/ORVI	R) FAMILY INFOR	MATION					
EV	AP / ORVR FA	MILY EV	APORATIVE STD CATEGO	ORY EVAP E	MISSION STD VEH	HICLE CLASS	SPE	ECIAL FEATURES			
H	IGMXR00958	305	LEV2			HCT					
ł	IGMXR01108	375	LEV2			HCT					
	*		*			*					
			EMISSIO	N CREDIT INFOR	MATION						
		LLOWANCE FOR TEST	GROUP		G CREDIT FOR	NMOG CREDIT	EOP DOP	OPTIONAL EXH. STD FOR			
	NE PZEV	AT PZEV	TZEV	NON-P	ZEV ZERO-EVAP		POR BOR	WORK TRUCKS			
- 1 - 1 - 1	# 		*		N	N		N			
			NMOG AND FL	EET AVERAGE I	NFORMATION						
NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO	HCHO/NMHC RATIO		G+NOX FLEET T (0-3750 LVW) (g			EET STD LDT (3751 LVW- NR) + MDPV (g/mi)			
*	*	1.04	*		0.086			0.101			

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.

# 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 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).

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# 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.

day of May 2016

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

mostica

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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# **ATTACHMENT**

# **EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS**

(For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP.	HWFET.	50 F. 2	20 °F)	1
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	FUEL TYPE  CH4=methane; NMOG=non-CH4 organic gas; RC=hydrocarbon; NMHC=non-CH4 HC; CO=carbon monoxide; NOx=oxides of nitrog HCH0=formaldehyde; PM=particulate matter; RAF=reactivity adjuxtment factor; 2DHS/3DHS [g HC/test]=2/3 days diurnal+hot-soak; HC/mi]=running loss; ORVR [g HC/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram; mi=mile; K=1000 in Fahrenheit; FTP=federal test procedure; SFTP=supplemental FTP  NMOG+NOx (g/mi) CO (g/mi) HCHO (mg/mi) PM (g/mi) HWY										ak; RL [g		
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
FTP @ 50K	*	*	*	*	*	*	*	*	*	*	*		
FTP @ UL	GASOLINE-TIER2 UNLEADED	0.022	0.110	0.4	2.1	*	4	*	0.010	0.005	0.110		
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	*	*	0.7	10.0	*	*	*	*	*	*		
50°F @ 4K	*	*	*	*	*	*	*	*	*	*	*		

### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

Table part				US	06				SC	03			CC	MPOSITI	E	
	FUEL TYPE	NMHC (g/r		CO (	g/mi)	PM (m	ng/mi)	NMHC (g/i		co (	g/mi)	NMC	G+NOx (	g/mi)	CO (9	g/mi)
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	BIN	CERT	STD
@ 4K	GASOLINE-TIER2 UNLEADED	0.01	0.14	0.4	8.0	*	*	0.01	0.20	0.4	2.7	*	*	*	*	*
@ UL	GASOLINE-TIER2 UNLEADED	*	*	*	*	*	*	*	*	*	*	0.013	0.103	0.110	*	*

### WHOLE VEHICLE EVAPORATIVE/ORVR EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY  HGMXR0095805  HGMXR0110875  *	FUEL TYPE	WHOLE VEHICLE EVAPORATIVE TESTING							G LOSS	ON-BOARD REFUELING	
		3-DAYS DIURNAL + HOT SOAK (g/test) @ UL			2-DAYS DIURNAL + HOT SOAK (g/test) @ UL			(g/mi)		(g/gallon) @ UL	
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	CERT	STD
HGMXR0095805	GASOLINE-TIER2 UNLEADED	0.34	0.50	*	0.54	0.65	*	0.00	0.05	0.08	0.20
HGMXR0110875	GASOLINE-TIER2 UNLEADED	0.36	0.50	*	0.19	0.65	*	0.00	0.05	0.02	0.20
*	Ħ	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*

### FUEL ONLY & CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY			FUEL ONLY EVAP					
	FUEL TYPE	3-DAYS DIURNA (g/test)	AL + HOT SOAK ) @ UL	2-DAYS DIURNA (g/test)		CANISTER BLEED (g/test)		
		CERT	STD	CERT	STD	CERT	STD	
*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	

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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#LVW; LDT3=LDT 6001-8500#GVWR,3751-8500#ALVW; MDV=medium-duty vehicle; MDV4=MDV 8501-10000#GVWR; MDV5=MDV 10001-14000#GVWR; MDPV=medium-duty 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 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-CARE: 85% ethanol+15% CA Phase2 gasoline; E10-CARE: 10% ethanol+90% CA Phase2 gasoline; E10-EAR: E10-EAR: E10-EAR: E10-EAR: E10-E

## 2017 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH	OBD	PZEV
BUICK	ENCORE	PC	1.4	SA6	HGMXR0095805	1	Р	*
BUICK	ENCORE AWD	PC	1.4	SA6	HGMXR0095805	1	Р	*
CHEVROLET	CRUZE	PC	1.4	M6,SA6	HGMXR0110875	1	Р	*
CHEVROLET	CRUZE HATCHBACK	PC	1.4	M6,SA6	HGMXR0110875	1	Р	
CHEVROLET	CRUZE PREMIER	PC	1.4	SA6	HGMXR0110875	1	Р	*
CHEVROLET	CRUZE PREMIER HATCHBACK	PC	1.4	M6,SA6	HGMXR0110875	1	Р	*