GENERAL MOTORS LLC

EXECUTIVE ORDER A-006-2039

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

				TE	ST GRO	UP INFORMA	TION					
MODEL YEAR	TEST GRO	UP	VEHIC	LE CLASS(ES)		FUEL	CATEGORY		FU	EL TYPE		
2017	HGMXV03.6	5166		PC	* ^ .	FLEX-	FUEL VEHICLE (FFV)		85% ETHA	NOL, GASOLINE		
	USEFUL LIF	E (miles)	A STATE OF THE STATE OF	VEHICL	E EMISS	SION CATEG	ORY	INTE	RIM / INTERME	EDIATE IN-USE STD		
EXH/	ORVR	EVA	\P	FTP		S	FTP	ı	FTP	SFTP		
120	,000	150,0	000	USEPA TIER3 I COUNTED AS LEV2 ULE	ARB	LEV2 SFT	STANDARD		*	*		
SPECIAL	FEATURES &	EXHAUST E	MISSION	CONTROL SYSTEMS			OBD STATUS		ENGIN	IE DISPLACEMENT (L)		
1 2TWC(2), 2HO2S(2), DFI						FULL ALL MODELS						
2	. 2T	WC, TWC,	2HO2S(2),	DFI		PARTIAL	*			3.6		
*			*		PAI	RTIAL WITH	*					
	and the state of t	and the second	E	VAPORATIVE & REF	UELING	(EVAP/ORVE	R) FAMILY INFORM	MATION				
EV	AP / ORVR FA	MILY	EVA	PORATIVE STD CAT	EGORY	EVAP E	MISSION STD VEH	IICLE CLAS	S SPE	CIAL FEATURES		
	HGMXR01338	310		LEV2			PC			*		
	*			*	*				*			
	*			*			*	*				
and the same	Carry Control of the	and the second section of		EMIS	SION CR	EDIT INFOR	MATION					
		LLOWANCE					CREDIT FOR	NMOG CR	EDIT FOR DOR	OPTIONAL EXH. STD FOR		
BASEL	INE PZEV	A	T PZEV	TZE	/	NON-PZ	ZEV ZERO-EVAP		N	WORK TRUCKS		
The North Assessment of the	et marketer a vigerio	restration and a step of					· N	Land San San	N	N N		
				NMOG AND	FLEET		NFORMATION					
NMOG RAF	CH4 RAF	FTP NMO		HCHO/NMHC RATI	0		G+NOX FLEET T (0-3750 LVW) (g			EET STD LDT (3751 LVW- NR) + MDPV (g/mi)		
*	*	1.0)4	*			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.

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

(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 CERT	IEICATION I EVELS /ETP HWEE	T 50 0F 20 0F)
EXHAUST EINISSIUN STANDARDS AND CERT	IFICATION LEVELS IF IF. HIVEL	1. 30 T. 20 F/

	FUEL TYPE	CH4=methane; NMOG=non-CH4 organic gas; HC=hydrocarbon; NMHC=non-CH4 HC; CO=carbon monoxide; NOx=oxides of nitrogen; HCH0=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; CRVR [g HC/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram; ml=mile; K=1000 miles; F=degrees Fahrenheit; FTP=federal test procedure; SFTP=supplemental FTP											
		NMOG+NOx (g/mi)		CO (g/mi)		HCHO (mg/mi)		PM (g/mi)		HWY NMOG+NOx (g/mi)			
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
FTP @ 50K	*	*	*	*	. *	*	*	*	*	*	*		
FTP @ UL	E85-EPA (GASOLINE - TIER 2 UNLEADED)	0.040 (0.029)	0.110 (0.110)	0.4 (0.4)	2.1 (2.1)	0 (0)	4 (4)	(*)	0.010 (0.010)	0.021 (0.022)	0.110 (0.110)		
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	*	*	2.8	10.0	*	*	*	*	*	*		
50°F @ 4K	*	*	*	*	*	*	*	*	*	*	*		

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

FUEL TY		US06						SC03				COMPOSITE				
	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)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	BIN	CERT	STD
@ 4K	GASOLINE-TIER2 UNLEADED	0.03	0.14	0.3	8.0	*	*	0.00	0.20	0.2	2.7	*	*	*	*	*
@ UL	GASOLINE-TIER2 UNLEADED	*	*	*	*	*	*	*	*	*	*	0.031	0.103	0.110	*	*

WHOLE VEHICLE EVAPORATIVE/ORVR EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY		WHOLE VEHICLE EVAPORATIVE TESTING							G LOSS	ON-BOARD REFUELING	
	FUEL TYPE	3-DAYS DIURNAL + HOT SOAK (g/test) @ UL			2-DAYS DIURNAL + HOT SOAK (g/test) @ UL			(g/mi) @ UL		VAPOR RECOVERY (g/gallon) @ UL	
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	CERT	STD
HGMXR0133810	E10-EPA	0.25	0.50	*	0.30	0.65	*	0.00	0.05	*	*
HGMXR0133810	GASOLINE-TIER2 UNLEADED	0.20	*	*	0.29	*	*	0.00	*	0.01	0.20
*	*	*	*	*	*	. *	*		*	*	*
*	*	*	*	*	*	*	*	*	*	*	. *

FUEL ONLY & CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY								
	FUEL TYPE		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#ALVW; LDT4=LDT 6001-8500#GVWR,5751-8500#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; AlR/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-CARB: 85% ethanol+15% CA Phase2 gasoline; E10-CARB: 10% ethanol+90% CA Phase2 gasoline; E10-EPA: 10% ethanol+90% Tier2 unleaded gasoline; A=automatic transmission; M=manual transmission; AMS=automated manual transmission; OT=other transmission; OT=other transmission; OT=other transmission; OT=other transmis

2017 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH	OBD	PZEV TYPE
CHEVROLET	CAPRICE PPV	PC	3.6	A6	HGMXR0133810	1	F	*
CHEVROLET	IMPALA ·	PC	3.6	SA6	HGMXR0133810	2	F	*