GENERAL MOTORS LLC

EXECUTIVE ORDER A-006-2031

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 G	ROUP	NFORMA	TION	-				
MODEL YEAR	TEST GRO	EST GROUP VEHICLE CLASS(ES)				FUE	CATEGORY	FU	FUEL TYPE			
2017	HGMXT02.4151 LDT2				F	LEX-FUI	EL VEHICLE (FFV	85% ETHA	85% ETHANOL, GASOLINE			
CONTRACTOR STATE	USEFUL LIF	E (miles)		VEHICLE EI	MISSIO	N CATEG	ORY	INT	ERIM / INTERME	DIATE IN-USE STD		
EXH/O	RVR	EVAP		FTP		9	FTP		FTP	SFTP		
120,0	000	150,000		USEPA TIER3 BIN1 COUNTED AS ARI LEV2 ULEV		EV2 SFT	STANDARD		*	*		
SPECIAL F	EATURES &	EXHAUST EMISSI	ON CONT	ROL SYSTEMS		- 4. 7	OBD STATUS		ENGIN	E DISPLACEMENT (L)		
1	1 TWC(2), HO2S(2), DFI					FULL *						
*						RTIAL	ALL MOD	DELS		2.4		
*		*				AL WITH NES	*					
77. 1000 200			EVAPO	PRATIVE & REFUELI	NG (EV	AP/ORVE	R) FAMILY INFORM	MATION				
EVA	P / ORVR FA	MILY	EVAPOR	ATIVE STD CATEGO	RY	EVAP E	WISSION STD VEH	HCLE CLAS	S SPE	CIAL FEATURES		
Н	GMXR01388	13		LEV 2			LDT2			*		
	*			*		*				*		
	*			*					. *			
All the second of the second of	No. of the second		* P. (S), W. (C) * (1990)	EMISSION	CRED	IT INFOR	MATION	Colon Colon Street, September 19	THE CONTRACTOR AND A MARKET	Control of the second of the s		
	Al	LOWANCE FOR 1	TEST GRO	UP			G CREDIT FOR	NMOG CR	EDIT FOR DOR	OPTIONAL EXH. STD FO		
	NE PZEV	AT PZE	V	TZEV		NON-P	ZEV ZERO-EVAP	THING ON		WORK TRUCKS		
		•		•	PORTO CO NA	N. 45	N	Towns of Section 19 the	N	N		
				NMOG AND FLE	EET AV	ERAGE I	NFORMATION					
NMOG RAF	CH4 RAF	FTP NMOG/NMI RATIO	HC HC	HO/NMHC RATIO	ST		G+NOX FLEET T (0-3750 LVW) (g		MOG+NOX FLEET STD LDT (3751 LVW- 8500 GVWR) + MDPV (g/mi)			
*	t	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.

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 ________

_day of May 2016.

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, 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 diumal+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 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)	0.050 (0.055)	0.110 (0.110)	0.6 (0.7)	2.1 (2.1)	1.2	4 (4)	(*)	0.010 (0.010)	0.015 (0.018)	0.110 (0.110)	
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	*	*	2.0	12.5	*	* .	*	*	*	*	
50°F @ 4K	*	*	*	.*	*	*	*	*	*	*	*	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

		US06						SC03				COMPOSITE				
	FUEL TYPE	NMHC (g/s		CO (g/mi)	PM (m	ng/mi)	NMHC (g/		co (g/mi)	NMC	G+NOx (g/mi)	CO (g	յ/mi)
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	BIN	CERT	STD
@ 4K	GASOLINE-TIER2 UNLEADED	0.05	0.25	2.9	10.5	*	*	0.06	0.27	1.4	3.5	*	*	*	*	*
@ UL	GASOLINE-TIER2 UNLEADED	*	*	*	*	*	*	*	*	*	*	0.055	0.103	0.110	*	*

WHOLE VEHICLE EVAPORATIVE/ORVR EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE		WHOLE VEHICLE EVAPORATIVE TESTING							RUNNING LOSS		ON-BOARD REFUELING	
FAMILY	FUEL TYPE		S DIURNAL K (g/test) @			S DIURNAL K (g/test) ((g/mi)		ON-BOARD I VAPOR RE (g/gallor CERT * 0.06		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	CERT	STD	
HGMXR0138813	E10-EPA	0.26	0.65	*	0.35	0.85	*	0.00	0.05	*	*	
HGMXR0138813	GASOLINE - TIER 2 UNLEADED	*	*	*	*	*	*	*	*	0.06	0.20	
*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	

FUEL ONLY & CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE						
		3-DAYS DIURNA (g/test)		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#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; TOX/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; SA=semi-automatic transmission; OT=other transmission; OT=other transmission; OT=other transmission; OT=other transmission; OT=other transmission; OT=other transm

2017 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	ECS	OBD	PZEV
CHEVROLET	EQUINOX AWD	LDT2	2.4	A6	HGMXR0138813	1	Р	*
CHEVROLET	EQUINOX FWD	LDT2	2.4	A6	HGMXR0138813	1	Р	*
GMC	TERRAIN FWD	LDT2	2.4	A6	HGMXR0138813	1	Р	*