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## **GENERAL MOTORS LLC**

**EXECUTIVE ORDER A-006-2045** 

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.

grantea.												
				TE	ST GRO	UP INFORMA	TION					
MODEL YEAR	TEST GRO	UP VEHICLE CLASS(ES)				FUE	CATEGORY	FL	FUEL TYPE			
2017	17 HGMXV03.6167 PC						ED SINGLE FUE /EHICLE	L	GASOLINE			
	USEFUL LIF	E (miles)	3., 8	VEHICL	E EMIS	SION CATEG	ORY	IN	TERIM / INTERME	DIATE IN-USE STD		
EXH/0	ORVR	EVAP	-	FTP		S	FTP		FTP	SFTP		
120	,000	150,000		COUNTED AS	USEPA TIER3 BIN110 COUNTED AS ARB LEV2 ULEV				*	*		
SPECIAL	FEATURES &	EXHAUST EMI	SSION	CONTROL SYSTEMS			OBD STATUS	A STATE OF THE STA	ENGIN	IE DISPLACEMENT (L)		
1	27	WC, TWC, 2H	O2S(2)	, DFI		FULL ALL MODEL			ELS			
*		*			PARTIAL					3.6		
*		*			PAI	RTIAL WITH FINES	*					
	a contract of the contract of		E	VAPORATIVE & REFU	JELING	(EVAP/ORVE	R) FAMILY INFORM	MATION	* A. W. S. P. S.			
EV	AP / ORVR FA	MILY	EV	APORATIVE STD CAT	EGORY	EVAP E	MISSION STD VEH	HICLE CLA	SS SPE	ECIAL FEATURES		
	HGMXR01338	310		LEV2			PC		*			
	*			*			*		*			
	*			*			*		*			
			n = 4,	EMIS	SION CR	REDIT INFOR	MATION					
	A	LLOWANCE FO	R TEST	GROUP		NMO	CREDIT FOR	1		OPTIONAL EXH. STD FOR		
				TZEV	1	NON-PZ	ZEV ZERO-EVAP	NMOG C	REDIT FOR DOR	WORK TRUCKS		
	*	'	*	*			N		N	N		
			-	NMOG AND	FLEET	AVERAGE II	NFORMATION					
NMOG RAF	CH4 RAF	FTP NMOG/I		HCHO/NMHC RATIO			G+NOX FLEET T (0-3750 LVW) (g	ı/mi)	NMOG+NOX FLEET STD LDT (3751 LVW- 8500 GVWR) + 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.

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)
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	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; ORVR [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) HCH0 (mg/mi) PM (g/mi) HWY NMOG+NOx (g/mi)											
		CERT	STD	CERT	STD .	CERT	STD	CERT	STD	CERT	STD		
FTP @ 50K	*	*	*	*	*	*	*	*	*.	*	*		
FTP @ UL	GASOLINE-TIER2 UNLEADED	0.032	0.110	0.9	2.1	*	4	*	0.010	0.015	0.110		
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	*	. *	2.9	10.0	*	*	*	*	*	*		
50°F @ 4K	*	*	*	*	*	*	*	*	*	*	*		

## SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	FUEL TYPE	US06						SC03				COMPOSITE				
		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	0.06	0.14	2.4	8.0	*	*	0.01	0.20	0.9	2.7	*	*	.*	*	*
@UL	GASOLINE-TIER2 UNLEADED	*	*	2.4	*	*	*	*	*	0.9	*	0.033	0.103	0.110	*	*

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

EVAPORATIVE FAMILY			WHOLE V	EHICLE EV	APORATIVE	RUNNING 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	GASOLINE-TIER2 UNLEADED	0.205	0.50	*	0.288	0.65	*	0.000	0.05	0.011	0.20
*	*	*	*	*	*.	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*
*		*	*	*	*	*	*	*	*	*	*

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

EVAPORATIVE FAMILY								
	FUEL TYPE	3-DAYS DIURN/ (g/test		2-DAYS DIURNA (g/test)		CANISTER BLEED (g/test)		
		CERT	STD	CERT	STD	CERT	STD	
*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	
*	*	*	*	*	* .	*	*	

## @ Air Resources Board

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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,3751-5750#LVW; 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 adsorbion 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; 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; E85-EPA: 85% ethanol+15% Tier2 unleaded gasoline; E10-CARB: 10% ethanol+90% CA Phase2 gasoline; E10-EPA: 10% ethanol+90% CA Phase2 gasoline; E10-EPA: 10% ethanol+90% CA Phase2 gasoline; E10-EPA: 10% ethanol+90% CT-other transmission; CV=continuously variable transmission; AM=automated manual transmission; AMS=automated manual-selectable transmission; OT=other transmission;

## 2017 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
CADILLAC	XTS HEARSE	PC	3.6	SA6	HGMXR0133810	1	F	*
CADILLAC	XTS LIMO	PC	3.6	SA6	HGMXR0133810	1	F	*