California Environmental Protection Agency

Air Resources Board

GENERAL MOTORS LLC. Executive Order: A-006-2089

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 GR	OUP IN	FORMAT	ION				
MODE		EST G	ROUP	VEH	IICLE CLASS(I	ES)		FUEL CATEGORY		FUEL TYPE		
2018	JGMXD06.0395				MDV4 FLEX			LEX-FUEL		85% ETHA	85% ETHANOL, GASOLINE	
USEFUL LIFE (miles) VEHICLE EMISSION						SION C	ATEGOR	TE IN-USE STD				
EXH/ORVR EVAP F					FTP		SFTP		FTP		SFTP	
15	150000 150000 LEV3			V3 ULEV250	LEV3 ULEV (FULL US06, SC03, FTP TEST CYCLE)		FTP	PM	PM			
SPE	CIAL F	ATUR		AUST EMIS	SION CONTRO	OL		OBD STA	TUS	ENGINE	DISPLACEMENT (L)	
1	1 SFI, 2TWC, 2HO2S(2), TWC						FUL	L- A	LL MODELS			
*		* PARTIAL *								6.0		
*		* PARTIAL V							*	*		
			EV	APORATIVE	& REFUELING	G (EVA	P/ORVR)	FAMILY IN	FORMATION			
EVA	P / ORV	R FAM	NILY	EVAPORAT	IVE STD CATE	GORY		AP EMISS		SPECIA	L FEATURES	
J	GMXR02	22384	1		LEV 2		MDV4			HCT		
J	GMXF0:	17686	0		LEV 2		MDV4			HCT		
J	GMXR02	212602	A	LEV 3 O	PTION2 WITH	ON2 WITH FEL MD			DV4 HCT			
					EMISSION (CREDIT	INFORM	ATION				
	A	LLOW	ANCE FO	R TEST GR	OUP			EDIT FOR		EDIT FOR	OPTIONAL EXH STD FOR WORK	
BASE	ELINE P	ZEV	AT	PZEV	TZEV	NO	N-PZEV Z	ZERO-EVA	P	DR	TRUCKS	
	*			*	*		N	ī		4	N	
				NM	OG AND FLEE	TAVE	RAGE IN	FORMATIC	N			
NMOG RAF	G CH4 NMOG/NMHC RAT		HCHO/NMH RATIO (GASOLIN	LDT (3751	LDT (3751 LVW-8500		MDV (850		R) MDV	NOX FLEET STD (10,001-14,000 VWR) (g/mi)		
*	*		1.10	*		*	0.278			0.451		

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).

BE IT FURTHER RESOLVED:

For evaporative family JGMXR021260A, the manufacturer has attested to compliance with the 0.02 inch effective leak diameter standard in 13 CCR Section 1976(b)(1)(G)6 ["Effective Leak Diameter Standard And Procedure"].

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 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

O Air Resources Board

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F, 20°F)

CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon 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

The state of the state of											
		NMOG+NOx (g/mi)		100000		NOx (g/mi)		HCHO (mg/mi)		1	M mi)
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE- LEV3 E10 (TIER 3 E85 (85% ETHANOL + 15% TIER 3 E10 GAS))		0.250	1.7	6.4 (6.4)	* (*)	* (*)	1 (2)	6 (6)	0.002	0.008
50°F @4K	*	*	*	*	*	*	*	*	*		AND THE REAL PROPERTY.

					AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED I	
	FUEL TYPE	NMOG+N	lOx (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	•	* :	*			
HWFET @ UL	GASOLINE-LEV3 E10 (TIER 3 E85 (85% ETHANOL + 15% TIER 3 E10 GAS))	0.083	0.250 (0.250)			
20°F @ 50K	*		200 XX 2000 ES	*	*	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

786		A . A.A.		US06		SC03	3	COMPOSITE			
	FUEL TYPE	esta.	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	
@ 4K	*	CERT	*	*		*	*				
		STD	*	*		*	*	File Mariania			
		CERT	*	*	*	*	*	0.145	3.1	4	
@ UL	GASOLINE- LEV3 E10	STD	*	*	*	*	*	0.800	22.0	10	
		BIN						*		F	
		CERT	*	*	*	* .	*	0.152	1.9	4	
@ UL	E85-TIER3	STD	*.	*	*	*	*	0.800	22.0	10	
		BIN						*			

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			WHOLE	NG					
EVAPORATIVE FAMILY	FUEL TYPE	3DH:	S (g/test)	@ UL	2DI	HS (g/test) (RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
JGMXF0176860	GASOLINE- LEV3 E10	0.408	1.00	*	0.296	1.25	*	0.00	0.05
JGMXR021260A	GASOLINE- TIER3 E10	0.456	0.600	0.575	0.467	0.600	0.575	0.00	0.05
JGMXR0223841	E10-EPA	0.651	1.00	*	0.447	1.25	*	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		
JGMXR021260A	GASOLINE- TIER3 E10	0.01	0.20	GASOLINE- TIER3 E10	*	*	*	*	0.007	0.030		
JGMXR0223841	GASOLINE - TIER 2 UNLEADED	0.029	0.20	*	*	*	*	*	*	*		

*: 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; FFH: fuel fired heater; 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: semiautomatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission

2018 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
CHEVROLET	C25 SILVERADO 2WD	MDV4	6.0	A6	JGMXR021260A	1	F	*
CHEVROLET	C35 SILVERADO 2WD	MDV4	6.0	A6	JGMXR021260A	1	F	*
CHEVROLET	G2500 EXPRESS 2WD CARGO	MDV4	6.0	A6	JGMXR0223841	1	F	*
CHEVROLET	G2500 EXPRESS 2WD PASS	MDV4	6.0	A6	JGMXR0223841	1	F	*
CHEVROLET	G3500 EXPRESS 2WD CARGO	MDV4	6.0	A6	JGMXR0223841	1	F	*
CHEVROLET	G3500 EXPRESS 2WD CUTAWAY CH	MDV4	6.0	A6	JGMXF0176860	1	F	*
CHEVROLET	G3500 EXPRESS 2WD PASS	MDV4	6.0	A6	JGMXR0223841	1	F	*
CHEVROLET	K25 SILVERADO 4WD	MDV4	6.0	A6	JGMXR021260A	1	F	*
CHEVROLET	K35 SILVERADO 4WD	MDV4	6.0	A6	JGMXR021260A	1	F	*
GMC	C25 SIERRA 2WD	MDV4	6.0	A6	JGMXR021260A	1	F	*
GMC	C35 SIERRA 2WD	MDV4	6.0	A6	JGMXR021260A	1	F	*
GMC	G2500 SAVANA 2WD CARGO	MDV4	6.0	A6	JGMXR0223841	1	F	*
GMC	G2500 SAVANA 2WD PASS	MDV4	6.0	A6	JGMXR0223841	1	F	*
GMC	G3500 SAVANA 2WD CARGO	MDV4	6.0	A6	JGMXR0223841	1	F	*
GMC	G3500 SAVANA 2WD CUTAWAY CH	MDV4	6.0	A6	JGMXF0176860	1	F	*
GMC	G3500 SAVANA 2WD PASS	MDV4	6.0	A6	JGMXR0223841	1	F	*
GMC	K25 SIERRA 4WD	MDV4	6.0	A6	JGMXR021260A	1	F	*
GMC	K35 SIERRA 4WD	MDV4	6.0	A6	JGMXR021260A	1	F	*