# California Environmental Protection Agency

**Air Resources Board** 

GENERAL MOTORS

Executive Order: A-006-1948-1
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 GROUP	INFORM	ATION						
MODE	_ 1 11	EST G	ROUP	VEHIC	CLE CLASS(ES) FUEL CA		UEL CATEGORY		IEL TYPE				
2015	015 FGMXD06.0399				MDV5			CL VEHICLE FFV)	85% ETHA	NOL, GASOLINE			
- (	JSEFUL	LIFE	(miles)	VEH	ICLE EMISSION	CATEGO	DRY	INTERIM / I	NTERMEDIA	TE IN-USE STD			
EXH	ORVR		EVAP		FTP	SFT		FTP		SFTP			
15	0000		150000	LEV3	LEV630	*		*		NMOG+NOX			
SPE	CIAL FE	ATUR	RES & EXH SYST		ON CONTROL	10 July 10 Jul	OBD ST	TATUS	ENGINE	DISPLACEMENT (L)			
1		SF	I, 2TWC,	2HO2S(2),	TWC	F	ULL	ALL MODELS	3				
*				*		PA	RTIAL	*		6.0			
*				*		120	IAL WITH	*		-			
			EV	APORATIVE &	REFUELING (E	VAP/ORV	R) FAMILY	INFORMATIO	ON				
EVA	P / ORV	R FAI	MILY	EVAPORATIV	E STD CATEGO	RY I	EVAP EMIS VEHICLE	SSION STD	SPECIA	L FEATURES			
F	GMXR02	2384	2	I	EV 2 MI			V5		*			
					EMISSION CRE	DIT INFOR	RMATION						
	A	LLOV	ANCE FO	R TEST GROU	IP	NMOG	CREDIT FO	R NMOG	REDIT FOR	OPTIONAL EXH			
BASE	LINE P	ZEV	AT	PZEV	TZEV	NON-PZE	V ZERO-E	VAP	DOR	TRUCKS			
* *				*		N .		N	n n				
				NMO	AND FLEET A	VERAGE	INFORMAT	TION					
NMOG RAF	CH4 RAF	14 NMOG/NMHC PATIO IDT /3751 LVM		V-8500 GV		NMOG+NOX FLEET ST MDV (8501-10000 GVWI (g/mi)		NMOG+NOX FLEET STD MDV (10001-14000 GVWR) (g/mi)					
*	*		1.10	*	*			*		*			

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 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

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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).

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

This Executive Order hereby cancels and supersedes Executive Order A-006-1948 dated December 18, 2013.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this

6 day of December 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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## 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** 

		NMOG+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)			
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
FTP@50K	*	*	*	*	*	*	*	. *	*	*	*		
FTP@UL	E85-EPA (GASOLINE- LEV3 E10)	0.126 (0.147)	0.630 (0.630)	0.8 (1.5)	7.3 (7.3)	0.1 (0.1)	0.4 (0.4)	2 (*)	6 (6)	* (*)	0.12 (0.12)		
50°F @4K	E85-EPA (GASOLINE- LEV3 E10)	0.418 (0.214)	1.260 (1.260)	1.6 (2.0)~	7.3 (7.3)	* (*)	* (*)	6 (*)	80 (80)				

	FUEL TVDE	NMOG+N	Ox (g/mi)	CO	(g/mi)
	FUEL TYPE	CERT	STD	CERT	STD
HWFET @ 50K	*	*	*		
HWFET @ UL	E85-EPA (GASOLINE-LEV3 E10)	0.076 (0.065)	0.630 (0.630)		
20°F @ 50K	*	7.0/10 20/10 12		*	*

### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC0	3	COMPOSITE			
	FUEL TYPE		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	*	*		*	*				
0		STD	*	*		*	*	<b>建筑建造</b>			
		CERT	*	*	*	*	*	*	*	*	
@ UL	* STD * * * * * BIN	*	*	*	*.	*					
		BIN			THE STATE OF			*			

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

EVAPORATIVE FAMILY			WHOLE	VEHICLE	EVAPORA	TIVE TESTII	NG		
	FUEL TYPE	3DH	S (g/test)	@ UL	2DI	HS (g/test) (	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
FGMXR0223842	E10-EPA	0.65	1.00	*	0.45	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		
FGMXR0223842	GASOLINE - TIER 2 UNLEADED	0.03	0.20	*	*	*	*	*	*	*		

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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: 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; 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: semi-automatic transmission; CV: continuously variable transmission; SCV; selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission: OT: other transmission

## 2015 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE	
CHEVROLET	C35 SILVERADO 2WD	MDV5	6.0	A6	FGMXR0223842	1	F	*	
CHEVROLET	K35 SILVERADO 4WD	MDV5	6.0	A6	FGMXR0223842	1	F	*	
GMC	C35 SIERRA 2WD	MDV5	6.0	A6	FGMXR0223842	1	F	*	
GMC	K35 SIERRA 4WD	MDV5	6.0	A6	FGMXR0223842	1	F	*	