#### California Environmental Protection Agency

**⊘** Air Resources Board

GENERAL MOTORS LLC. Executive Order: A-006-1987

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.

	TEST GROUP INFORMATION										
MODEL YEAR	- I TE	ST GROUP		VEHICLE	CLASS(E	S)	FUEL CA	ATEGORY	FU	FUEL TYPE	
2016	2016 GGMXV06.2090 PC					DEDICATED SINGLE FUEL VEHICLE			GASOLINE		
U	JSEFUL L	IFE (miles)		VEHIC	CLE EMISS	ION CATE	GORY	INTERIM / IN	TERMEDIA	TE IN-USE STD	
EXH/	ORVR	EVAF	,	FI	ГР	S	FTP	FTP		SFTP	
150	0000	15000	0	LEV3 I	LEV160	LEV 3 (	COMPOSITE	*		NMOG+NOX	
SPEC	CIAL FEA	TURES & E	XHAUS STEMS		N CONTRO	L	OBD ST	ATUS	ENGINE	DISPLACEMENT (L)	
1	sc	, CAC, DF	I, 2TW	С(2), 2НО	2S(2)		FULL	ALL MODELS			
2		DFI, 21	WC (2)	, 2HO2S(2)	)		PARTIAL	*		6.2	
*	* *					PA	RTIAL WITH FINES	*			
		E	VAPO	RATIVE & R	EFUELING	(EVAP/O	RVR) FAMILY	INFORMATION	V		
EVAF	P / ORVR	FAMILY	EVA	PORATIVE	STD CATE	SORY	DRY EVAP EMISSION STD VEHICLE CLASS SPECIAL FEAT			L FEATURES	
GC	GMXR013	3810		LEV	LEV 2			2		*	
				EN	MISSION CF	REDIT INF	ORMATION				
ALLOWANCE FOR TEST OF BASELINE PZEV AT PZEV				NN		NMOG CREDIT FOR ON-PZEV ZERO-EVAP		REDIT FOR OR	OPTIONAL EXH. STD FOR WORK TRUCKS		
* *					*		N		N	N	
				NMOG A	AND FLEET	AVERAC	E INFORMAT	ION			
NMOG	NMOG RAF CH4 RAF FTP NMOG/NMHC RATIO HCHO/NMHC		HC RATIO	PC+LDT	NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)		NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)				
*		*	1.	10		*		0.093		0.110	

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.

California Environmental Protection Agency

**⊘** Air Resources Board

GENERAL MOTORS LLC. Executive Order: A-006-1987

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 2 of 4

#### 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).

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 June 2015

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

GENERAL MOTORS LLC. Executive Order: A-006-1987

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 3 of 4

# **OP Air Resources Board**

## ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS	AND CERTIFICATION LEVELS
THINGOI WIND TAVILLE TIMESIGH CIVILDA	THE SELECTION OF THE SE

EXHAUST EMISSION STANDARDS	AND CERTIFICATION LEVELS (F	P, 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	GASOLINE- LEV3 E10	0.0384	0.160	0.37	4.2	*	*	*	4	*	0.01
50°F @4K	*	*	*	*	*	*	*	*	*		

PENNERS N		NMOG+	NOx (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-LEV3 E10	0.0264	0.160			
20°F @ 50K	GASOLINE-COLD CO HIGH OCTANE	1		1.21	10.0	

#### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

, , ,				US06		SC03	3	COM	IPOSITE	
	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)
241/	*	CERT	*	*		*	*			
@ 4K	*	STD	*	*		*	*			
		CERT	*	*	*	*	*	0.0943	0.63	*
@ UL	GASOLINE- LEV3 E10	STD	*	*	*	*	*	0.110	4.2	*
		BIN		V. Asset				0.120		

## WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE							
EVAPORATIVE FAMILY	FUEL TYPE	3DHS (g/test) @ UL			2DHS (g/test) @ UL			RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	
GGMXR0133810	GASOLINE - TIER 2 UNLEADED	0.205	0.50	*	0.288	0.65	*	0.000	0.05	

## ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

					FUEL ONLY EVAP & CANISTER BLEED								
EVAPOR. FAMIL		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		
GGMXR01		GASOLINE - TIER 2 UNLEADED	0.011	0.20	*	*	*	*	*	*	*		

California Environmental Protection Agency

**⊘** Air Resources Board

GENERAL MOTORS

Executive Order: A-006-1987

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 4 of 4

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; 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; NH3QC: ammonia oxidation catalyst: CTOX/PTOX: continuous/periodic trap oxidizer; DPF: diesel particulate filter (active); GPF: PM filter for sparkignited 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

# 2016 MODEL YEAR: VEHICLE MODELS INFORMATION

	MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
	CHEVROLET	CORVETTE	PC	6.2	M7, SA8	GGMXR0133810	1	F	*
	CHEVROLET	CORVETTE	PC	6.2	M7,SA8	GGMXR0133810	2	F	*

