## **GENERAL MOTORS LLC**

**EXECUTIVE ORDER A-006-1865** 

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Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 39516 and Executive Order G-02-003;

### IT IS ORDERED AND RESOLVED:

That 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			
MODEL YEAR	TEST GRO	OUP VEHIC	LE CLASS(ES)	FUE	L CATEGORY		FUEL TYPE	
2014	EGMXV01.	8031	PC		FED SINGLE FUE VEHICLE	<b>L</b>	GASOLINE	
	USEFUL LI	FE (miles)	VEHICLE	EMISSION CATE	ORY	INTERIM / IN	ITERMEDIATE IN-USE STD	
EXH/	ORVR	EVAP	FTP		SFTP	FTP	SFTP	
150	,000	150,000	LEV3 SULEV3	0 LEV3 C	OMPOSITE	*	NMOG+NOx	
SPECIAL	FEATURES 8	EXHAUST EMISSION	ONTROL SYSTEMS		OBD STATUS		ENGINE DISPLACEMENT (L)	
1	7	WC(2), HO2S(2), SFI,	AIR	FULL	*		******	
*		*		PARTIAL	ALL MOI	ELS 1.8		
*		*		PARTIAL WITH	*			
TO THE PERSON OF		E	VAPORATIVE & REFUE	LING (EVAP/ORV	R) FAMILY INFORI	MATION		
	EVAP / O	RVR FAMILY	EVAPO	RATIVE STD CAT	EGORY	EVAP EMIS	SION STD VEHICLE CLASS	
	EGMX	R0095700		LEV2			PC	
	EGMX	R0117704		LEV2			PC .	
		*		*			*	
<u> </u>			EMISSIC	ON CREDIT INFOR	MATION			
	Α	LLOWANCE FOR TEST	GROUP		G CREDIT FOR	NMOG CREDIT FO	P DOP OPTIONAL EXH. STD FOR	
	INE PZEV	AT PZEV	TZEV	NON-P	ZEV ZERO-EVAP		WORK TRUCKS	
ALL N	MODELS	*	*		N	N	N	
•		**************************************	NMOG AND F	LEET AVERAGE	NFORMATION			
NMOG RAP	CH4 RAF	NMOG/NMHC RATIO	HCHO/NMHC RATIO		G+NOX FLEET OT (0-3750 LVW) (g		NOX FLEET STD LDT (3751 LVW- 500 GVWR) + MDPV (g/mi)	
•	*	1.10	*		0.107		0.128	

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:**

That the exhaust and the evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50<sup>0</sup> 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 or NMOG+NOx, as applicable, Fleet Average" (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

## BE IT FURTHER RESOLVED:

That 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 Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

## **BE IT FURTHER RESOLVED:**

The test group listed in this Executive Order is certified conditionally on the manufacturer providing data to demonstrate compliance with California's greenhouse gas fleet average emission standard (CA GHG Standard) specified in Title 13, California Code of Regulations, (13 CCR) Section 1961.1 and the incorporated California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, amended March 29, 2010 (CA Test Procedures). The manufacturer has elected, under 13 CCR Section 1961.1(a)(1)(A)(ii) and under Section E.2.5.1(ii) of the CA Test Procedures, to demonstrate compliance with the CA GHG Standard by demonstrating compliance with the National greenhouse gas program (National GHG Program). Therefore,

California Environmental Protection Agency

Cara Air Resources Board

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the test group listed in this Executive Order is certified conditionally further on the manufacturer complying with the requirements specified in said provisions in 13 CCR, and Sections E.2.5.1(ii) and H.4.5(b) and H.4.5(c) of the CA Test Procedures (among other things, concerning data and information submission, timing, and format as specified by the Executive Officer). Failure to comply with the certification requirements to demonstrate compliance with CA GHG Standard by demonstrating compliance with the National GHG Program under said provisions in 13 CCR and CA Test Procedures may be cause for the Executive Officer to revoke the Executive Order. Vehicles in the revoked Executive Order shall be deemed uncertified and subject to penalties authorized under California law. Notwithstanding the requirement herein, a manufacturer that becomes, after MY2009, a large-volume manufacturer, as defined in 13 CCR Section 1900, is not required to comply with the CA GHG Standard until the beginning of the fourth model-year from becoming a large-volume manufacturer. Additionally, notwithstanding the requirement herein, a small-volume manufacturer, independent low-volume manufacturer, or intermediate volume-manufacturer, as defined in 13 CCR Section 1900, is not required to comply with CA GHG Standard during model-years (MY) 2012 through 2015.

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 \_\_\_\_25

( 1)

Erik White, Chief

2Mobile Source Operations Division

day of April 2013.

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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)

		PM=particulate dispensed]=or test procedure	e matter; RAF=i n-board refuelin; i	ni)=running l	oxides of nitrogen, HCHO=formaldehyde; erunning loss; ORVR [g/gallon Fahrenheit; SFTP=supplemental federal						
		NMOG+NOx (g/mi)		CO (	CO (g/mi)		HCHO (mg/ml)		g/mi)	HWY NMOG+NOx (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP @ 50K	*	•	*	*	*	*	*	+	•	4	*
FTP @ UL	E10-CARB	0.018	0.030	0.2	1.0	*	4	*	0.01	0.002	0.030
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	•	*	0.6	10.0	*	*	*	•	*	*
50°F @ 4K	*	•	•	*	*	*	*	*	*	*	*

#### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	=	US06 / UC (LA92)						SC03				COMPOSITE				
	FUEL TYPE		i+NOx mi)	CO (	g/mi)	PM (n	ng/mi)		i+NOx mi)	co (	g/mi)	NMC	G+NOx (	g/mi)	CO (g	j/mi)
		CERT	STD	CERT	STD	CERT	STD	CERT	\$TD	CERT	STD	CERT	STD	BIN	CERT	STD
@ 4K	*	*	*	*	*	*	*	*	*	•	*	*	*	*	*	*
@ UL	E10-CARB	*	*	*	*	*	*	*	*	*	*	0.018	0.140	0.050	1.1	4.2

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

EVAPORATIVE	ORATIVE		WHOLE V	EHICLE EV	RUNNIN	G LOSS	ON-BOARD REFUELING VAPOR RECOVERY				
FAMILY	FUEL TYPE	3-DAYS DIURNAL + HOT SOAK (g/test) @ UL		2-DAYS DIURNAL + HOT SOAK (g/test) @ UL			(g/ml) @ UL		(g/gallon) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	CERT	STD
EGMXR0095700	GASOLINE - CA PHASE 2	0.32	0.35	*	0.31	0.35	*	0.000	0.05	0.01	0.20
EGMXR0117704	GASOLINÉ - CA PHASE 2	0.32	0.35	*	0.31	0.35	*	0.000	0.05	0.02	0.20

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

			FUEL ONLY EVAP	ORATIVE TESTING			
EVAPORATIVE FAMILY	FUEL TYPE	3-DAYS DIURNAL + HOT SOAK (g/test) @ UL (g/test) @ UL		CANISTER BLEED (g/test)			
		CERT	STD	CERT	STD	CERT	STD
EGMXR0095700	GASOLINE - CA PHASE 2	0.04	0.0	*	0.0	•	*
EGMXR0117704	GASOLINE - CA PHASE 2	0.04	0.0	*	0.0	•	*

\* =not applicable; 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#ALVW; LDT4=LDT 6001-8500#GVWR,5751-8500#ALVW; MDV=medium-duty vehicle; MDV4=MDV 8501-1000#GVWR; MDV5=MDV 10001-14000#GVWR; MDPV=medium-duty passenger vehicle; ECS= emission control system; CERT= certification; STD= standard; FEL= family emission limit; LVW=loaded vehicle weight; ALVW=adjusted LVW; LEV=low emission vehicle; ULEV=ultra LEV; SULEV=super ULEV; PZEV=partial allowance zero-emission vehicle; AT PZEV=advanced technology PZEV; TZEV=transitional zero-emission vehicle; TWC/OC=3-way/oxidizing catalyst; ADSTWC=adsorbing TWC; 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); HO2S/O2S=heated/oxygen sensor; WR-HO2S or AFS=wide rage/linear/heated air-fuel ratio sensor; NOXS= NOx 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=direct fuel injection; TC/SC= turbo/super charge; CAC=charge air cooler; OBD(F)/(P)(B)=full/partial/both 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

## 2014 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEHICLE CLASS	ENGINE (L)	TRANSMI SSION	EVAPORATIVE FAMILY	EXHAUST ECS	OBD	PZEV DESIGNATION
CHEVROLET	SONIC	PC	1.8	SEMI- AUTOMATIC, MANUAL	EGMXR0095700	1	Partial	PZEV
CHEVROLET	SONIC 5	PC	1.8	SEMI- AUTOMATIC, MANUAL	EGMXR0095700	1	Partial	PZEV
CHEVROLET	CRUZE	PC	1.8	SEMI- AUTOMATIC, MANUAL	EGMXR0117704	1	Partial	PZEV

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