### **GENERAL MOTORS LLC**

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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 G	ROUP INFORMA	TION				
MODEL YEAR	TEST GRO	OUP VEHIC	LE CLASS(ES)	FUEL	CATEGORY		FUEL TYPE		
2014	EGMXJ02.		OT ≤ 6000# GVWR 3751-5750# LVW)		ED SINGLE FUE ÆHICLE	L	GASOLINE		
7	USEFUL LI	FE (miles)	VEHICLE EI	MISSION CATEG	ORY	INTERIM	/ INTERME	EDIATE IN-USE STD	
EXH/C	DRVR	EVAP	FTP	S	FTP	FTP		SFTP	
150,	000	150,000	LEV3 SULEV30	LEV3 C	OMPOSITE	*	NMOG+NOx		
SPECIAL	FEATURES 8	EXHAUST EMISSION	CONTROL SYSTEMS		OBD STATUS	1	ENGIN	NE DISPLACEMENT (L)	
1	Т	WC(2), HO2S(2), DFI,	AIR	FULL	*				
*		*		PARTIAL	ALL MOI	DELS	2.4, 2.5		
*		*	3	PARTIAL WITH	*		,		
1		E	VAPORATIVE & REFUELI	NG (EVAP/ORVE	) FAMILY INFOR	MATION			
	EVAP / O	RVR FAMILY	EVAPOR	ATIVE STD CATI	EGORY	EVAP E	MISSION S	TD VEHICLE CLASS	
	EGMX	R0123702	-	LEV2			P	C	
	EGMX	R0133703		LEV2			LDT2		
	EGMX	R010830A	LEV3	OPTION2 WITH	FEL		PC		
At V has			EMISSION	CREDIT INFOR	MATION				
	A	LLOWANCE FOR TEST	GROUP		CREDIT FOR	NMOG CREDIT	FOR DOR	OPTIONAL EXH. STD FOR	
	INE PZEV	AT PZEV	TZEV	NON-P2	EV ZERO-EVAP		FOR DOR	WORK TRUCKS	
ALL N	IODELS	*	*		N	N		N	
		and the second second	NMOG AND FLI	EET AVERAGE IN	NFORMATION				
NMOG RAF	CH4 RAF	NMOG/NMHC RATIO	HCHO/NMHC RATIO		G+NOX FLEET T (0-3750 LVW) (c			EET STD LDT (3751 LVW- WR) + 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° 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,

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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.

This Executive Order hereby supersedes Executive Order A-006-1873 dated March 25, 2013.

Executed at El Monte, California on this 20

day of June 2013.

Erik White, Chief

Mobile Source Operations 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)

	FUEL TYPE	CH4=methane; NMOG=non-CH4 organic gas; NMHC=non-CH4 nydrocarbon; CU5=carbon monoxide; NOX=oxides of nitrogen; HcND=normaldenyde; PM=particulate matter; RAF=reactivity adjustment factor; 23 D [g/test]=2/3 day diumal+hot-soak; RL [g/mi]=running loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram; ml=mile; K=1000 miles; F=degrees Fahrenheit; SFTP=supplemental federal test procedure  NMOG+NOx (g/mi) CO (g/mi) HCHO (mg/mi) PM (g/mi) HWY NMOG+NOx (g/mi)									
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP @ 50K	*	*		*	*	*	*	*	*	*	*
FTP @ UL	E10-CARB	0.013	0.030	0.3	1.0	*	4	*	0.01	0.006	0.030
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE		*	1.7	10.0	*	*	*	*	*	*
50°F @ 4K	E10-CARB	0.016	0.060	0.3	1.0	*	8	*	*	*	*

#### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

FUELT		US06 / UC (LA92)					SC03				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)		
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	BIN	CERT	STD
@ 4K	*		*	*	*	*	*	*	*	*	*	*	*	*	*	
@ UL	E10-CARB	*	* .	*	*	*	¥	*	*	*	*	0.013	0.140	0.050	1.8	4.2

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

EVAPORATIVE FAMILY		WHOLE VEHICLE EVAPORATIVE TESTING						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		(g/gallon) @ UL	
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	CERT	STD
EGMXR0123702	GASOLINE-TIER 2 UNLEADED	0.26	0.35	*	0.22	0.35	*	0.000	0.05	0.01	0.20
EGMXR0133703	GASOLINE - CA PHASE 2	0.27	0.50	*	0.25	0.50	*	0.000	0.05	0.04	0.20
EGMXR010830A	E10-CARB	0.223	0.300	0.300	0.174	0.300	0.300	0.000	0.05	*	ŵ
	GASOLINE-TIER 2 UNLEADED	*	*	*	*	*	*	*	*	0.02	0.20

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

EVAPORATIVE FAMILY		1	FUEL ONLY EVAP					
	FUEL TYPE	3-DAYS DIURNA (g/test)		2-DAYS DIURNA (g/test)		CANISTER BLEED (g/test)		
		CERT	STD	CERT	STD	CERT	STD	
EGMXR0123702	GASOLINE - CA PHASE 2	0.04	0.0	*	0.0	*	*	
EGMXR0133703	GASOLINE - CA PHASE 2	0.04	0.0	*	0.0	*		
EGMXR010830A	E10-CARB	*	*	*	*	0.010	0.020	

\*=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#ALVW; 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=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; AIR/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 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; transmission; M=manual transmission; OT=other transmission; L=lock-up automatic transmission; CV=continuously variable transmission; OT=other transmission; OT=other transmission; L=lock-up automatic transmission; CV=continuously variable

## 2014 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
CADILLAC	ATS	PC	2.5	SA	EGMXR010830A	1	Р	PZEV

California	Environmental	Protection	Agency
Ø≛ Ai	r Recou	reae R	oard

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CHEVROLET	IMPALA	PC	2.5	SA	EGMXR0123702	1	Р	PZEV
CHEVROLET	EQUINOX FWD	LDT2	2.4	А	EGMXR0133703	1	Р	PZEV
CHEVROLET	EQUINOX AWD	LDT2	2.4	А	EGMXR0133703	1	Р	PZEV
GMC	TERRAIN FWD	LDT2	2.4	А	EGMXR0133703	1	Р	PZEV
GMC	TERRAIN AWD	LDT2	2.4	А	EGMXR0133703	1	Р	PZEV