GENERAL MOTORS LLC

EXECUTIVE ORDER A-006-1934

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), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 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 G	ROUP INFORM	IATION					
MODEL	TEST GRO	OUP. VEHIC	LE CLASS(ES)	FUI	EL CATEGORY	FUEL TYPE				
2015	FGMXJ02.		OT ≤ 6000# GVWR 3751-5750# LVW)	DEDICA	TED SINGLE FUE VEHICLE	GASOLINE				
	USEFUL LI	FE (miles)	VEHICLE EI	MISSION CATE	GORY	INTERI	M / INTERME	EDIATE IN-USE STD		
EXH/C	DRVR	EVAP	FTP		SFTP	FTI)	SFTP		
150,	000	150,000	LEV3 SULEV30	LEV3	COMPOSITE	*	NMOG+NOx			
SPECIAL	FEATURES 8	EXHAUST EMISSION	ONTROL SYSTEMS	7, (OBD STATUS	1	ENGIN	NE DISPLACEMENT (L)		
1	Т	WC(2), HO2S(2), DFI,	AIR	FULL	*					
2		TWC(2), HO2S(2), DF	1	PARTIAL	PARTIAL ALL MOD			2.4, 2.5		
*		*		PARTIAL WITH	*					
		E	VAPORATIVE & REFUELI	NG (EVAP/OR\	R) FAMILY INFORI	MATION				
	EVAP / O	RVR FAMILY	EVAPOR	ATIVE STD CA	TEGORY	EVAP	MISSION S	TD VEHICLE CLASS		
	FGMX	R010830A	LEV3	OPTION2 WIT	HFEL	PC				
	FGMX	R0123702		LEV2		PC				
	FGMX	R0133703		LEV2			LDT2			
	0	1	EMISSION	CREDIT INFO	RMATION					
	A	LLOWANCE FOR TEST	GROUP	NMC	G CREDIT FOR	NMOG CRED	T FOR DOD	OPTIONAL EXH. STD FOR		
BASEL	BASELINE PZEV AT PZEV TZEV				NON-PZEV ZERO-EVAP		I FOR DOR	WORK TRUCKS		
ALL N	ODELS	* .	*		N	N		N		
A STATE OF THE STA	***************************************		NMOG AND FL	EET AVERAGE	INFORMATION					
NMOG RAF	CH4 RAF	NMOG/NMHC RATIO	HCHO/NMHC RATIO		OG+NOX FLEET DT (0-3750 LVW) (c	(g/mi) NMOG+NOX FLEET STD LDT (3751 LVV 8500 GVWR) + MDPV (g/mi)				
*	*	1.10			0.100		0.119			

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 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+NOx 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, amended December 6, 2012).

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 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for PC, LDT, and MDV, amended December 6, 2012 (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

GENERAL MOTORS LLC

EXECUTIVE ORDER A-006-1934

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 2 of 4

National greenhouse gas program (National GHG Program). Therefore, 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.

day of April 2014.

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.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

EXECUTIVE ORDER A-006-1934

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 3 of 4

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; HC=hydrocarbon; NMHC=non-CH4 HC; CO=carbon monoxide; NOx=oxides of nitrogen; HCH0=formaldehyde; PM=particulate matter; RAF=reactivity adjustment factor; 2DHS/3DHS [g HC/test]=2/3 days diurnal+hot-soak; RL [g HC/m]=running loss; ORVR [g HC/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram; ml=mile; K=1000 miles; F=degrees Fahrenheit; FTP=federal test procedure; SFTP=supplemental FTP										
		NMOG+NOx (g/mi)		CO (g/mi)		HCHO (mg/mi)		PM (g/mi)		HWY NMOG+NOx (g/mi)		
4		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
FTP @ 50K	*	*	*	*	*	*	*	*	. *	*	*	
FTP @ UL	GASOLINE-LEV3 E10	0.013	0.030	0.3	1.0	*	4	*	0.01	0.006	0.030	
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	*	*	1.6	10.0	*	*	*	*	*	*	
50°F @ 4K	*	*	*	*	*	*	t t	*	*	*	*	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	FUEL TYPE	US06					SC03				COMPOSITE					
		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
@ UL	GASOLINE-LEV3 E10	*	*	*	*	*	*		*	*	*	0.013	0.140	0.050	1.8	4.2

WHOLE VEHICLE EVAPORATIVE/ORVR EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE			WHOLE V	EHICLE EV	RUNNING LOSS		ON-BOARD REFUELING					
FAMILY	FUEL TYPE		IURNAL + H			IURNAL + H					R RECOVERY allon) @ UL	
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	CERT	STD	
	GASOLINE-LEV3 E10	0.223	0.300	0.300	0.174	0.300	0.300	0.000	0.05	*	*	
FGMXR010830A	GASOLINE-TIER 2 UNLEADED	*	*	*	*	*	*	*	*	0.02	0.20	
FGMXR0123702	GASOLINE-TIER 2 UNLEADED	0.26	0.35	*	0.22	0.35	*	0.000	0.05	0.01	0.20	
FOMVD0402700	GASOLINE - CA PHASE 2	0.27	0.50	*	0.25	0.50	*	0.000	(g/gall T STD CERT 0 0.05 * 0 0.05 0.01	*		
FGMXR0133703	GASOLINE-TIER2 UNLEADED	*	*	*	*	*	*	*	*	0.04	0.20	

FUEL ONLY & CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE		FUEL ONLY EVAP					
		3-DAYS DIURN/ (g/test	AL + HOT SOAK	2-DAYS DIURNA (g/test)		CANISTER BLEED (g/test)		
		CERT	STD	CERT	STD	CERT	STD	
FGMXR010830A	GASOLINE-LEV3 E10	*	*	*	*	0.014	0.020	
FGMXR0123702	GASOLINE - CA PHASE 2	0.04	0.0	*	0.0	*	*	
FGMXR0133703	GASOLINE - CA PHASE 2	0.04	0.0	*	0.0	*	*	

GENERAL MOTORS LLC

EXECUTIVE ORDER A-006-1934

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=medium-duty 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; 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-CARB: 85% ethanol+90% Tier2 unleaded gasoline; E85-EPA: 85% ethanol+15% Tier2 unleaded gasoline; E10-CARB: 10% ethanol+90% CA Phase2 gasoline; E10-CARB: 10% ethanol+90% CA Phase2 gasoline; E10-CARB: 10% ethanol+90% CA Phase2 gasoline; E10-CARB: 10% ethanol+90% Tier2 unleaded gasoline; A=automatic transmissi

2015 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEHICLE CLASS	ENGINE (L)	TRANSMI SSION	EVAPORATIVE FAMILY	EXHAUST ECS	OBD	PZEV DESIGNATION
CADILLAC	ATS	PC	2.5	SA	FGMXR010830A	2	Р	PZEV
CHEVROLET	MALIBU	PC	2.5	SA	FGMXR0123702	2	Р	PZEV
CHEVROLET	IMPALA	PC	2.5	SA	FGMXR0123702	2	Р	PZEV
CHEVROLET	EQUINOX FWD	LDT2	2.4	Α	FGMXR0133703	1	Р	PZEV
CHEVROLET	EQUINOX AWD	LDT2	2.4	А	FGMXR0133703	1	Р	PZEV
GMC	TERRAIN FWD	LDT2	2.4	A	FGMXR0133703	1	Р	PZEV
GMC	TERRAIN AWD	LDT2	2.4	А	FGMXR0133703	1	Р	PZEV