## **GENERAL MOTORS LLC**

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

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.

MODEL YEAR	TEST GROUP	VEHICLE TYPE	EXHAUST EMISSION STANDARD CATEGORY	USEFU (mli		IN- COMP (*=N/A or A/E=ex	MEDIATE USE LIANCE full in-use; h. / evap. iate in-use)	FUEL TYPE
2044	BGMXV06,2086	Passenger Car	USEPA Bin 4 Counted as ARB LEV2	EXH / ORVR	EVAP	EXH	EVAP	Gasoline (Tier 2
2011	BGMIX V06.2086	rassenger cal	ULEV	120K	150K	*		Unleaded)
No.	ECS & SP	EVAPORATIVE	DISPLACEMENT (L)					
1 2TWC, 2HO2S(2), SFI, OBD(F)			BGMXR	0133880				
*		*		,	6.2			
*		•						

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, 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 Fleet Average" (PC or LDT) 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 test data to determine the greenhouse gas (GHG) emissions for the listed test group, expressed in grams per mile of carbon dioxide-equivalent (g/mi CO2-e), as required in section E.2.5.2 of the California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as amended August 4, 2005 (the Test Procedures). Manufacturer shall provide the required data within 45 days after the date of the Executive Order unless (a) an extension is granted by the Executive Officer, or (b) the manufacturer demonstrates to the satisfaction of the Executive Officer that it is exempt from determining GHG emissions for the listed test group under section E.2.5.3 (Intermediate Volume Manufacturers) or E.2.5.4 (Small Volume Manufacturers) of the Test Procedures. Failure to comply with the certification requirement to determine the GHG emissions for the listed test group 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 therein, the manufacturer is not required to determine GHG emissions for any medium-duty vehicles in the listed test group that are not medium-duty passenger vehicles.

## BE IT FURTHER RESOLVED:

The listed vehicle models are federally certified, and are certified under the provisions of 13 CCR Section 1961(a)(14) and the incorporated test procedures.

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.

Libert Hammarell. FOR ANNETTE HEBERT

Annette Hebert, Chief

Mobile Source Operations Division



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

# **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.)

NMOG FLEET AVERAGE [g/mi]		NMOG @ RAF=* CH4 RAF = * NMOG or													
CERT	STD	NMOG	NMHC	NMHC STD [g/ml]	hot-soak; R	tL (g/mi)≃ru ≃1000 miles	nning loss; 0 s; F=degrees	ORVR [g/gal s Fahrenhei	llon disper t: SFTP=s	ısed}=on-bo upplementa	ard refueli I federal te	ng vapor rec st procedure	:overy; g≖gr	am; mg=milli	gram
0.036	0.035		CERT		CO [g/mī]		NO	NOx [g/ml] H		CHO [mg/mi]		PM [g/mi]		Hwy NOx [g/ml]	
	0.000		[g/mi]		CERT	STD	CERT	STD	CE	RT S	TD	CERT	STD	CERT	STD
	@ 50K	*		*	*	+	*	•	*	·	*	*	*	*	4
	@ UL	0.061	*	0.070	1.4	2.1	0.03	0.04	*	1	1.		0.01	0.02	0.05
- 4 10	<b>@</b> 50°F & 4K		*	*	*	*	•	*	*		*	*	*	*	*
CO [g/mi]		regacións Videoprasi		NMHC+N0 (comp		CO [(		NMHC- [g/mi] [			[g/mi] 306]		C+NOx [SC03]		g/mi] :03]
@ 20°	F& 50K	\$100 m 150 m Z		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	6.4	SFTP @ 4	000 miles	•	*	*	*	0.05	0.14	1.0	8.0	0.05	0.20	1.5	2.7
STD	10.0	SFTP	@ 120000 miles	0.06	0.63	*	*	*	•	1.0	11.1	*	•	1.5	3.7

Evaporative Family	3-Days Dium (grams/te	al + Hot Soak est) @ UL		al + Hot Soak est) @ UL		ng Loss nile) @ UL	On-Board Refueling Vapor Recovery (grams/gallon) @ UL		
	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
BGMXR0133880	0.22	0.50	0.18	0.65	0.000	0.05	0.01	0.20	
±	*	*	•	*	*	*	•	* .	
*	*	*	•	*	•	*	*	*	
*	*	*	*	*	•	*	*	•	
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\* = not applicable; UL=useful life; PC=passenger car; LDT=light-duty truck; MDV=medium-duty vehicle; ECS= Emission Control System; STD= Standard; CERT= Certification; LVW=loaded vehicle weight; ALVW=adjusted LVW; LEV=low emission vehicle; TLEV=transitional LEV; ULEV=ultra LEV; SULEV=super ULEV; TWC=3-way catalyst; ADSTWC=adsorbing TWC; WU=warm-up catalyst; OC=oxidizing catalyst; O2S=oxygen sensor; HO2S=heated O2S; AFS/HAFS=air- fuel ratio sensor / heated AFS; EGR=exhaust gas recirculation; AIR=secondary air injection; PAIR=pulsed AIR; MFI= multiport fuel injection; SFI=sequential MFI; TBI=throttle body injection; TC/SC= turbo/super charger; CAC=charge air cooler; OBD (F)/(P)=full/partial on-board diagnostic; DOR=direct ozone reducing; prefix 2=parallel; (2) suffix=series; CNG/LNG= compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=\*85%" Ethanol Fuel

## 2011 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	INTERMEDIATE IN-USE COMPLIANCE (*=N/A or full in-use; A/E=exh. / evap. intermediate in-use)		PHASE-IN STD.	OBD II
					EXH	EVAP		
CHEVROLET	CORVETTE	BGMXR0133880	1	6.2	*	•	SFTP	Full