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 INFORMATION**

| MODEL YEAR | TEST GROUP | VEHICLE CLASS(ES) | FUEL CATEGORY | FUEL TYPE |
|---|---|---|---|---|
| 2014 | EGMXJ02.5150 | PC and LDT ≤ 6000# GVWR (PC; LDT 3751-5750# LVW) | DEDICATED SINGLE FUEL VEHICLE | GASOLINE |

| USEFUL LIFE (miles) | | VEHICLE EMISSION CATEGORY | | INTERIM / INTERMEDIATE IN-USE STD | |
|---|---|---|---|---|---|
| EXH/ORVR | EVAP | FTP | SFTP | FTP | SFTP |
| 150,000 | 150,000 | LEV3 SULEV30 | LEV3 COMPOSITE | * | NMOG+NOx |

| SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS | | OBD STATUS | | ENGINE DISPLACEMENT (L) |
|---|---|---|---|---|
| 1 | TWC(2), HO2S(2), DFI, AIR | FULL | * | 2.4, 2.5 |
| * | * | PARTIAL | ALL MODELS | |
| * | * | PARTIAL WITH FINES | * | |

**EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION**

| EVAP / ORVR FAMILY | EVAPORATIVE STD CATEGORY | EVAP EMISSION STD VEHICLE CLASS |
|---|---|---|
| EGMXR0123702 | LEV2 | PC |
| EGMXR0133703 | LEV2 | LDT2 |
| * | * | * |

**EMISSION CREDIT INFORMATION**

| ALLOWANCE FOR TEST GROUP | | | NMOG CREDIT FOR NON-PZEV ZERO-EVAP | NMOG CREDIT FOR DOR | OPTIONAL EXH. STD FOR WORK TRUCKS |
|---|---|---|---|---|---|
| BASELINE PZEV | AT PZEV | TZEV | | | |
| ALL MODELS | * | * | N | N | N |

**NMOG AND FLEET AVERAGE INFORMATION**

| NMOG RAF | CH4 RAF | NMOG/NMHC RATIO | HCHO/NMHC RATIO | 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 | * | 0.107 | 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$^0$ 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.

Executed at El Monte, California on this 25th day of March 2013.

Annette Hebert, 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)

**CH4**=methane; **NMOG**=non-CH4 organic gas; **NMHC**=non-CH4 hydrocarbon; **CO**=carbon monoxide; **NOx**=oxides of nitrogen; **HCHO**=formaldehyde; **PM**=particulate matter; **RAF**=reactivity adjustment factor; **2/3 D** [g/test]=2/3 day diurnal+hot-soak; **RL** [g/mi]=running loss; **ORVR** [g/gallon dispensed]=on-board refueling vapor recovery; **g**=gram; **mg**=milligram; **mi**=mile; **K**=1000 miles; **F**=degrees Fahrenheit; **SFTP**=supplemental federal test procedure

| | FUEL TYPE | 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

| | FUEL TYPE | US06 / UC (LA92) | | | | | | 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 |
| @ 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 | FUEL TYPE | WHOLE VEHICLE EVAPORATIVE TESTING | | | | | | RUNNING LOSS (g/mi) @ UL | | ON-BOARD REFUELING VAPOR RECOVERY (g/gallon) @ UL | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3-DAYS DIURNAL + HOT SOAK (g/test) @ UL | | | 2-DAYS DIURNAL + HOT SOAK (g/test) @ 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 |
| * | * | * | * | * | * | * | * | * | * | * | * |

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

| EVAPORATIVE FAMILY | FUEL TYPE | FUEL ONLY EVAPORATIVE TESTING | | | | CANISTER BLEED (g/test) | |
|---|---|---|---|---|---|---|---|
| | | 3-DAYS DIURNAL + HOT SOAK (g/test) @ UL | | 2-DAYS DIURNAL + HOT SOAK (g/test) @ UL | | | |
| | | 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 | * | * |
| * | * | * | * | * | * | * | * |

* =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#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; **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) | TRANSMISSION | EVAPORATIVE FAMILY | EXHAUST ECS | OBD | PZEV DESIGNATION |
|---|---|---|---|---|---|---|---|---|
| CHEVROLET | IMPALA | PC | 2.5 | SEMI-AUTOMATIC | EGMXR0123702 | 1 | PARTIAL | PZEV |
| CHEVROLET | EQUINOX FWD | LDT2 | 2.4 | AUTOMATIC | EGMXR0133703 | 1 | PARTIAL | PZEV |
| CHEVROLET | EQUINOX AWD | LDT2 | 2.4 | AUTOMATIC | EGMXR0133703 | 1 | PARTIAL | PZEV |

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GMC | TERRAIN FWD | LDT2 | 2.4 | AUTOMATIC | EGMXR0133703 | 1 | PARTIAL | PZEV |
| GMC | TERRAIN AWD | LDT2 | 2.4 | AUTOMATIC | EGMXR0133703 | 1 | PARTIAL | PZEV |

SUPERSEDED