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:**
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 | USEFUL LIFE (miles) | | FUEL TYPE |
|---|---|---|---|---|---|---|
| | | | | EXH / ORVR | EVAP | |
| 2015 | FFMXT03.53DC | LDT: 6001-8500# GVW, 3751-5750# ALVW | USEPA Bin 4 Counted as ARB LEV2 ULEV | 120K | 150K | Flexible Fuel: Ethanol (E85) / Gasoline (Tier 2 Unleaded) |

| No. | ECS & SPECIAL FEATURES | EVAPORATIVE FAMILY (EVAF) | DISPLACEMENT (L) |
|---|---|---|---|
| 1 | 2TWC, 2WR-HO2S, 2HO2S, SFI, OBD(P) | FFMXR0160ABC | 3.5 |
| * | * | FFMXR0235NBC | |
| * | * | * | |

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+NOx 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 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 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.

**BE IT FURTHER RESOLVED:**
The listed vehicle models are federally certified, and are certified under the provisions of 13 CCR Section 1961.2 (a)(12) 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.

Executed at El Monte, California on this 1 day of October 2014.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

# 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.)

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

| NMOG+NOx FLEET AVERAGE [g/mi] | | NMOG @ RAF=* CH4 RAF = * | | NMOG or NMHC STD [g/mi] | CO [g/mi] | | NOx [g/mi] | | HCHO [mg/mi] | | PM [g/mi] | | Hwy NOx [g/mi] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CERT | STD | NMOG CERT [g/mi] | NMHC CERT [g/mi] | | CERT | STD | CERT | STD | CERT | STD | CERT | STD | CERT | STD |
| 0.119 | 0.119 | | | | | | | | | | | | | |
| | @ 50K | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | @ UL | 0.043 (0.044) | * | 0.070 (0.070) | 0.8 (0.7) | 2.1 (2.1) | 0.01 (0.02) | 0.04 (0.04) | 1.1 (*) | 11. (11.) | * (*) | 0.01 (0.01) | 0.01 (0.01) | 0.05 (0.05) |
| | @ 50°F & 4K | * | * | * | * | * | * | * | * | * | * | * | * | * |

| CO [g/mi] @ 20°F & 50K | | | NMHC+NOx [g/mi] (composite) | | CO [g/mi] (composite) | | NMHC+NOx [g/mi] [US06] | | CO [g/mi] [US06] | | NMHC+NOx [g/mi] [SC03] | | CO [g/mi] [SC03] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CERT | STD | CERT | STD | CERT | STD | CERT | STD | CERT | STD | CERT | STD |
| CERT | (0.9) | SFTP @ 4000 miles | * | * | * | * | (0.04) | (0.40) | (1.7) | (10.5) | (0.01) | (0.31) | (0.3) | (3.5) |
| STD | (12.5) | SFTP @ * miles | * | * | * | * | * | * | * | * | * | * | * | * |

| Evaporative Family | 3-Days Diurnal + Hot Soak (grams/test) @ UL | | 2-Days Diurnal + Hot Soak (grams/test) @ UL | | Running Loss (grams/mile) @ UL | | On-Board Refueling Vapor Recovery (grams/gallon) @ UL | |
|---|---|---|---|---|---|---|---|---|
| | CERT | STD | CERT | STD | CERT | STD | CERT | STD |
| FFMXR0160ABC | 0.40 | 0.90 | * | 1.15 | 0.000 | 0.05 | 0.03 | 0.20 |
| FFMXR0235NBC | 0.62 | 0.90 | * | 1.15 | 0.000 | 0.05 | 0.04 | 0.20 |
| * | * | * | * | * | * | * | * | * |
| * | * | * | * | * | * | * | * | * |

***** =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; **ECS**= emission control system; **STD**= standard; **CERT**= certification; **LVW**=loaded vehicle weight; **ALVW**=adjusted LVW; **LEV**=low emission vehicle; **ULEV**=ultra LEV; **SULEV**=super ULEV; **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 range/linear/heated air-fuel ratio sensor; **NOXS**= NOx sensor; **RDQS**=reductant quality sensor; **NH3S** = Ammonia sensor; **PMS**=particulate matter 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;

## 2015 MODEL YEAR: VEHICLE MODELS INFORMATION

| MAKE | MODEL | EVAPORATIVE FAMILY | ECS NO. | ENGINE SIZE (L) | VEHICLE TYPE | SPECIAL FEATURES | OBD II |
|---|---|---|---|---|---|---|---|
| FORD | F-150 PICKUP 2WD FFV | FFMXR0160ABC | 1 | 3.5 | LDT3 | * | Partial |
| FORD | F-150 PICKUP 2WD FFV | FFMXR0235NBC | 1 | 3.5 | LDT3 | * | Partial |
| FORD | F150 PICKUP 4WD FFV | FFMXR0160ABC | 1 | 3.5 | LDT3 | * | Partial |
| FORD | F150 PICKUP 4WD FFV | FFMXR0235NBC | 1 | 3.5 | LDT3 | * | Partial |