## California Environmental Protection Agency

# **⊘** Air Resources Board

FORD MOTOR COMPANY

Executive Order: A-010-1937

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

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Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 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 GROUP INFORMATION														
MOD		TEST G	ROUP		VEHICLE CLASS(ES)				FUEL CATEGORY			FUEL TYPE			
201	6	GFMXV02	XV02.0VD2 PC					FLEX-FUEL VEHICLE (FFV)			85% ETHANOL, GASOLINE				
	USEF	UL LIFE	(miles)		VEHI	CLE EMISS	ON (	CATE	GORY	IN	ITERIM / IN	TERME	DIA	TE IN-USE STD	
EX	H/ORV	R	EVAP		F.	TP		SF	TP		FTP			SFTP	
120000 150000			1.1	COUNTED	D AS ARB STANDAR				*		*		*		
SP	ECIAL	FEATUR		HAUST STEMS	EMISSIO	N CONTRO	_		OBD S	TAT	JS	ENC	SINE	DISPLACEMENT (L)	
1		T	WC, WR-	HO2S, I	HO2S, DF	ï			FULL.	AL	L MODELS				
*	*							F	PARTIAL *		2.0				
*				*				PAF	RTIAL WITH FINES	тн *					
			E	/APOR	ATIVE & R	EFUELING	(EVA	P/OF	RVR) FAMILY	INF	ORMATION				
EV	AP / OF	RVR FA	NILY	EVAPO	PORATIVE STD CATEGORY			′	EVAP EMIS VEHICLI			SPI	ECIAI	L FEATURES	
	GFMXR	0110GB	A		LEV 2			PC *			*				
					Εľ	MISSION CF	REDI	T INF	ORMATION						
DAG	SEL INE		<u> </u>		T GROUP	TZEV			G CREDIT FO		NMOG CR	EDIT F	OR	OPTIONAL EXH. STD FOR WORK TRUCKS	
BASELINE PZEV AT PZEV						12EV								INCORO	
* *						*			N		1	и и			
NMOG AND FLEET AVERAGE INFORMATION															
NMOG RAF CH4 RAF FTP NMOG RATIO (GA							C RATIO PC+I		NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)		LE	NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)			
	*	*		1.04	1		k			0.0	93			0.110	

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.

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#### BE IT FURTHER RESOLVED:

The exhaust and 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 and greenhouse gas 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).

#### 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 27 day of August 2015.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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## **ATTACHMENT**

# EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F, 20°F)

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

#### **FUEL TYPE**

At 1.2 (5a)											
	n Pi	NMOG (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	E85-EPA (GASOLINE - TIER 2 UNLEADED)	0.022	0.070 (0.070)	0.7 (1.6)	2.1 (2.1)	0.03	0.04	1 (*)	11 (11)	* (*)	0.01 (0.01)
50°F @4K	*	*	*	*	*	*	*	*	*		Walter Land

	FUEL TYPE	NOx	(g/mi)	CO (g/mi)		
Reserved A	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	E85-EPA (GASOLINE - TIER 2 UNLEADED)	0.02 (0.03)	0.05 (0.05)			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE			2.66	10.0	

#### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

1 10				US06		SC0:	3	COM	<b>IPOSITE</b>	
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
	GASOLINE	CERT	0.02	1.5	- et .	0.04	1.2		52 27	
@ 4K	- TIER 2 UNLEADED	STD	0.14	8.0		0.20	2.7			
		CERT	*	*	*	*	*	*	*	*
@ UL	*	STD	*	*	*	*	*	*	*	*
		BIN						*		

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE						
EVAPORATIVE	FUEL TYPE	3DH:	S (g/test) (	@ UL	2DI	HS (g/test) @	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
GFMXR0110GBA	E10-EPA	0.26	0.50	*	*	0.65	*	0.00	0.05

## ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

					FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL TYPE	3DHS R (g/test		2DHS R (g/test		BLEED CANISTER TEST (g/test) @ 4K					
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD				
GFMXR0110GBA	E10-EPA	0.01	0.20	*	*	*	*	*	*	*				

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not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: .DT<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: mediumduty 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 sparkignited 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: "85%" ethanol ("15%"gasoline) fuel; E10: "10%" ethanol ("90%"gasoline) fuel; A: automatic (with lockup); M: manual transmission; SA: semi-automatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission

2016 MODEL YEAR: VEHICLE MODELS INFORMATION												
MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE				
FORD	FOCUS FWD FFV	PC	2.0	AM6,AMS6,M5	GFMXR0110GBA	1	F	*				