# California Environmental Protection Agency Air Resources Board

FORD MOTOR COMPANY

Executive Order: A-010-1880

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 GRO	UP II	NFOF	RMATION					
MOD		TEST G	ROUP		VEHIC	LE CLASS(E	S)		FUEL CATEGORY			FUEL TYPE		
201	. 6	GFMXV02.0VZS PC					HYBRID ELECTRIC VEHICLE				G.P.	ASOLINE		
	USEF	UL LIFE	(miles)		VEH	ICLE EMISS	ION (	ATE	GORY	IN	TERIM / IN	TERME	DIA	TE IN-USE STD
EX	H/ORV	R	EVAP			FTP		SI	TP		FTP	SFTP		SFTP
1	50000		150000	)	LEV	2 SULEV	I		2 SFTP NDARD	*		*		*
SP	ECIAL	FEATUR		HAUST STEMS	EMISSI	ON CONTRO	L		OBD S	TAT	US	ENG	SINE	DISPLACEMENT (L)
1		TWC (2)	), WR-H	02S, H	02S, SI	FI, EGR			FULL		*			
*				*					PARTIAL	AL	L MODELS	11	2.0	
*	*							PA	RTIAL WITH		*			
			E,	VAPOR	ATIVE &	REFUELING	(EVA	P/O	RVR) FAMILY	/ INF	ORMATION			
EV	AP / OF	RVRFA	VILY	EVAP	ORATIVI	E STD CATE	GORY	,	EVAP EMISSION STD VEHICLE CLASS SPECIAL FEATUR			L FEATURES		
	GFMXR	0105GC	A.		L	LEV 2			P	,C			,	HCT
	GFMXR	0105GD	A		L	EV 2	PC					HCT		
						EMISSION C	REDI	ΓINF	ORMATION					
BAS	SELINE		VANCE F	OR TES	T GROU	TZEV	- '	- NON-P/E///ERO-			1	OP STD FOR WOR		OPTIONAL EXH. STD FOR WORK TRUCKS
						*								7.7
									N	TIO:	, n	1		И
NMOG AND FLEET AVERAGE INFORMATION														
NMO	G RAF	CH4 RAF FTP NMOG/NMHC HCHO/NMHC		IHC R	RATIO NMOG+NOX FLEET STE PC+LDT (0-3750 LVW) (g/mi)		750 LVW)	NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)						
	*	*		1.0	4		*			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 for PC, LDT and MDV).

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 2 day of March 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** 

A X Supple		NMOG (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
\$ 12 PROV		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE - TIER 2 UNLEADED	0.010	0.010	0.5	1.0	0.00	0.02	*	4	*	0.01
50°F @4K	*	*	*	*	*	*	*	*	*	YOT GIVEN	Alex Tax

Mark a Mari	FUEL TYPE	. NOx	(g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	. *	*	* .			
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.01	0.03			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE			0.6	10.0	

### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

1 =		Ada in		US06		SC0	3 .	COMPOSITE			
	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	0.03	1.0	Billian Ka	0.02	1.1				
@ 4K	- TIER 2 UNLEADED	STD	0.14	8.0		0.20	2.7		and the second	238 10. 11 10. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12	
		CERT	*	*	*	*	*	*	*	*	
@ UL	*	STD	*	*	*	*	*	*	*	*	
		BIN						*	January 148 day 4 ne."	Maria de la companya del companya de la companya del companya de la companya de l	

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE	PL (a/mi) @ III					
EVAPORATIVE   FAMILY	FUEL TYPE	3DH	S (g/test) (	D UL	2DI	HS (g/test) @	RL (g/mi) @ UL		
TAMILI		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
GFMXR0105GCA	GASOLINE - TIER 2 UNLEADED	0.41	0.50	*	*	0.65	*	0.00	0.05
GFMXR0105GDA	GASOLINE - TIER 2 UNLEADED	0.41	0.50	*	*	0.65	*	0.00	0.05

UNLEADED

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#### ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS **FUEL ONLY EVAP & CANISTER BLEED** ORVR (g/gallon) @ UL 3DHS RIG TEST 2DHS RIG TEST **BLEED CANISTER** EVAPORATIVE TEST (g/test) @ 4K **FAMILY** (g/test) @ UL (g/test) @ UL **FUEL TYPE CERT** FUEL TYPE | CERT STD CERT STD CERT STD STD GASOLINE -0.20 TIER 2 0.12 GFMXR0105GCA UNLEADED GASOLINE -GFMXR0105GDA TIER 2 0.12 0.20

: 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	C-MAX HYBRID FWD	PC	2.0	CV1	GFMXR0105GCA	1	P	*				
FORD	FUSION HYBRID FWD	PC	2.0	CV1	GFMXR0105GDA	1	P	*				
LINCOLN	MKZ HYBRID FWD	PC	2.0	CV1	GFMXR0105GDA	1	P	*				