California Environmental Protection Agency

OB Air Resources Board

FORD MOTOR COMPANY

Executive Order: A-010-2045

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 GR	OUP IN	FORMAT	TION					
MODE		TEST GROUP VEHICLE CLASS(ES)					FUEL CATEGORY			DRY	FUEL TYPE		
2018	JE	MXT03	3.33DT		LDT3		DED	ICATED VEI	SINGI	LE FUEL	G	ASOLINE	
ı	USEFUL	LIFE	(miles)	II v	EHICLE EMIS	SION C	ATEGOR	RY	INTE	RIM / INT	ERMEDIA	TE IN-USE STD	
EXH	ORVR		EVAP		FTP		SFTP			FTP		SFTP	
15	0000		150000	LE	V3 ULEV70	LEV	3 COMPO	OSITE	NMOG	+NOX AND	PM	PM	
SPE	CIAL FE	ATUR		HAUST EMIS	SION CONTR	OL		OBD ST	TATUS		ENGINE	DISPLACEMENT (L)	
1	2TW	C, 2W	R-HO2S,	2HO2S, SF	I, DFI, EGF	2	FU	LL		*			
*				*	,		PAR	TIAL	ALL	LL MODELS 3.3			
*				*			PARTIA FIN			*			
			EV	APORATIVE	& REFUELIN	G (EVA	P/ORVR)	FAMILY	INFO	RMATION	-		
EVA	P / ORV	R FAN	MILY	EVAPORAT	IVE STD CAT	EGORY		AP EMIS			SPECIA	L FEATURES	
J	FMXR02	OOGDO	3	LEV 3 O	PTION2 WITH	FEL		LD	т3			HCT	
J	FMXR02	60ND	}	LEV 3 O	PTION2 WITH	FEL		LD	т3			HCT	
					EMISSION	CREDIT	INFORM	IATION					
	A	LLOW	ANCE FO	R TEST GR	OUP		NMOG CR			IMOG CRI		OPTIONAL EXH STD FOR WORK	
BASE	LINE P	ZEV	· AT	PZEV	TZEV	NC	N-PZEV	ZERO-E	VAP	DO	R	TRUCKS	
	* .			*	*		1	N		N		N	
				NM	OG AND FLEE	TAVE	RAGE IN	FORMAT	TION			***	
MOG RAF	CH4 RAF	NMO	FTP G/NMHC ATIO	HCHO/NMH RATIO	PC+LD1			LDT (3751 L	LEET ST VW-8500 PV (g/mi)	MDV	NOX FLEET STD (10,001-14,000 VWR) (g/mi)	
*	*	:	1.10	*		0.079			0.092			*	

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).

BE IT FURTHER RESOLVED:

For evaporative families, JFMXR0200GDG and JFMXR0260NDG, the manufacturer has attested to compliance with the 0.02 inch effective leak diameter standard in 13 CCR Section 1976(b)(1)(G)6 ["Effective Leak Diameter Standard and Procedure"].

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 16th day of June 2017.

→ Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

(g/mi)

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(mg/mi)

(g/mi)

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** NMOG+NOx HCHO CO NOx PM (g/mi) (g/mi)

		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE- TIER3 E10	0.0365	0.070	0.82	1.7	* .	*	0.8	4	0.0013	0.003
50°F @4K	*	*	*	*	*	*	*	*	*		
		NN	OG+NOx	Ox (g/mi)		CO (g/mi)					
			FUEL TYP	_		CE	RT	STD	CEF	RT	STD
						-					

	FUEL TYPE	IAIAIOGALA	VOX (g/mi)	COI	g/mi)
	FOEL TIPE	CERT	STD	CERT	STD
HWFET @ 50K	*	*	*		
HWFET@UL	GASOLINE-TIER3 E10	0.0216	0.070		
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)	(6) (2)	Agree State	1.83	12.5

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

			•	US06		SC03	3	COM	POSITE	
	FUEL TYPE		NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMOG+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	*			
		STD	*	*		*	.*		· Lanca	
		CERT	*	*	2.8	*	*	0.0351	0.95	*
@ UL	GASOLINE- TIER3 E10	STD	*	*	10	*	*	0.097	4.2	*
		BIN	-27 F-1-3	5				0.070	19 E3 E	13.7

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE	VEHICLE	EVAPORA	TIVE TESTI	NG ·		
EVAPORATIVE FAMILY	FUEL TYPE	3DHS	S (g/test)	@ UL	2DI	HS (g/test) (@ UL	RL (g/m	i) @ UL
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
JFMXR0200GDG	GASOLINE- TIER3 E10	0.2989	0.500	0.500	. *	0.500	0.500	0.000	0.05
JFMXR0260NDG	GASOLINE- TIER3 E10	0.2537	0.500	0.500	0.2084	0.500	0.500	0.000	0.05

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ORVR / FUI	EL ONLY / CA	NISTER	BLEED	EVAPORATIVE	EMISSION	STANDA	RDS AND	CERTIFIC	ATION LEV	ELS			
				FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/g	gallon) @) UL	FUEL TYPE		IG TEST) @ UL	2DHS R (g/test		BLEED CANISTER TEST (g/test) @ 4K				
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD			
JFMXR0200GDG	GASOLINE- TIER3 E10	0.023	0.20	GASOLINE- TIER3 E10	*	*	*	*	0.0100	0.020			
JFMXR0260NDG	GASOLINE- TIER3 E10	0.014	0.20	GASOLINE- TIER3 E10	*	*	*	*	0.0080	0.020			

: not applicable: #: pounds: 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: mediumduty passenger vehicle; HDV: heavy-duty 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 spark-ignited 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; FFH: fuel fired heater; 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: semiautomatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission: AMS: automated manual-selectable transmission: OT: other transmission

	3 4 3			
2018 MODEL	YEAR.	VEHICL	E MODELS	INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYP
FORD	F150 2WD BASE PAYLOAD LT TIRE	LDT3	3.3	SA6	JFMXR0200GDG	1	P	*
FORD	F150 2WD BASE PAYLOAD LT TIRE	LDT3	3.3	SA6	JFMXR0260NDG	1	P	*
FORD	F150 4WD BASE PAYLOAD LT TIRE	LDT3	3.3	SA6	JFMXR0200GDG	1	P	*
FORD	F150 4WD BASE PAYLOAD LT TIRE	LDT3	3.3	SA6	JFMXR0260NDG	1	P	*
FORD	F150 PICKUP 2WD	LDT3	3.3	SA6	JFMXR0200GDG	1	P	*
FORD	F150 PICKUP 2WD	LDT3	3.3	SA6	JFMXR0260NDG	1	P	*
FORD	F150 PICKUP 4WD	LDT3	3.3	SA6	JFMXR0200GDG	1	P	*
FORD	F150 PICKUP 4WD	LDT3	3.3	SA6	JFMXR0260NDG	1	P	*