California Environmental Protection Agency Air Resources Board	FORD MOTOR COMPANY	Executive Order: A-010-2083 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 1 of 4

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

MODEL YEAR	TEST GROUP	VEHICLE CLASS(ES)	FUEL CATEGORY	FUEL TYPE
2018	JFMXT03.33DU	LDT3	FLEX-FUEL VEHICLE (FFV)	85% ETHANOL, GASOLINE

USEFUL LIFE (miles)		VEHICLE EMISSION CATEGORY		INTERIM / INTERMEDIATE IN-USE STD	
EXH/ORVR	EVAP	FTP	SFTP	FTP	SFTP
150000	150000	LEV3 ULEV70	LEV 3 COMPOSITE	NMOG+NOX AND PM	PM

SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS		OBD STATUS		ENGINE DISPLACEMENT (L)
1	2TWC, 2WR-HO2S, 2HO2S, SFI, DFI, EGR	FULL	*	3.3
*	*	PARTIAL	ALL MODELS	
*	*	PARTIAL WITH FINES	*	

EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION

EVAP / ORVR FAMILY	EVAPORATIVE STD CATEGORY	EVAP EMISSION STD VEHICLE CLASS	SPECIAL FEATURES
JFMXR0200GDG	LEV 3 OPTION2 WITH FEL	LDT3	HCT
JFMXR0260NDG	LEV 3 OPTION2 WITH FEL	LDT3	HCT

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			
*	*	*	N	N	N

NMOG AND FLEET AVERAGE INFORMATION

NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO (GASOLINE)	HCHO/NMHC RATIO (GASOLINE)	NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)	NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)	NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (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.

SUPERSEDED

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:
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 20TH day of September 2017.

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

SUPERSEDED

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 (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-TIER3 E10)	0.0345 (0.0365)	0.070 (0.070)	1.06 (0.82)	1.7 (1.7)	* (*)	* (*)	1.2 (0.8)	4 (4)	0.0008 (0.0013)	0.003 (0.003)
50°F @4K	E85-EPA	0.0953	0.250	0.61	2.1	*	*	10.5	16		

	FUEL TYPE	NMOG+NOx (g/mi)		CO (g/mi)	
		CERT	STD	CERT	STD
HWFET @ 50K	*	*	*		
HWFET @ UL	E85-EPA (GASOLINE-TIER3 E10)	0.018 (0.0216)	0.070 (0.070)		
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3) (COLD CO E70 (70%ETHANOL 30%EPA UNLEADED GASOLINE))			1.83 (2.19)	12.5 (12.5)

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

	FUEL TYPE		US06			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)	PM (mg/mi)
@ 4K	*	CERT	*	*		*	*			
		STD	*	*		*	*			
@ UL	E85-EPA	CERT	*	*	1.0	*	*	0.0460	1.13	*
		STD	*	*	10	*	*	0.097	4.2	*
		BIN						0.070		
@ UL	GASOLINE-TIER3 E10	CERT	*	*	2.8	*	*	0.0351	0.95	*
		STD	*	*	10	*	*	0.097	4.2	*
		BIN						0.070		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY	FUEL TYPE	WHOLE VEHICLE EVAPORATIVE TESTING						RL (g/mi) @ UL	
		3DHS (g/test) @ UL			2DHS (g/test) @ 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

SUPERSEDED

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

EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL ONLY EVAP & CANISTER BLEED						
				FUEL TYPE	3DHS RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K	
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD
JFMXR0200GDG	GASOLINE-TIER3 E10 PREM	0.029	0.20	GASOLINE-TIER3 E10	*	*	*	*	0.0100	0.020
JFMXR0260NDG	GASOLINE-TIER3 E10 PREM	0.01	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: medium-duty 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: semi-automatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission

2018 MODEL YEAR: VEHICLE MODELS INFORMATION

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

SUPERSEDED