

FORD MOTOR COMPANY

Executive Order: A-010-2147

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

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Pursuant to the authority vested in California 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: 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.

					TEST GRO	UP II	NFOR	MATION					
MODE YEAR	- 1 11	EST GROUP		VEHICLE CLASS(ES)				FUEL CATEGORY			FUEL TYPE		
2019	KF	MXT02.02JU	LDT2					DEDICATED SINGLE FUEL VEHICLE			GASOLINE		
	USEFUL	. LIFE (miles)		VEH	IICLE EMISS	ION (CATE	GORY	INTERIM / IN	TERM	MEDIATE IN-USE STD		
EXH	I/ORVR	EVAP			FTP		SF	TP	FTP		SFTP		
15	0000	150000		LEV3	ULEV70	LEV	3 C	OMPOSITE	PM		PM		
SPE	CIAL FE	ATURES & EX SYS	HAUS TEM		ON CONTRO	L		OBD S	TATUS	EN	IGINE DISPLACEMENT (L)		
1 7	TWC, WR	-HO2S, HO2S	CAC	C, TC, DE	FI, EGR, EG	SRC		FULL	*	1			
*			*				F	ARTIAL	ALL MODELS 2		2.0		
*	* *						PAF	RTIAL WITH	*				
•		E/	APO	RATIVE &	REFUELING	(EVA	P/OR	VR) FAMIL	INFORMATIO	V			
EVA	P / ORV	RFAMILY	EVA	PORATIVE	STD CATE	GORY	Y EVAP EMISSION STD VEHICLE CLASS SPECIA			PECIAL FEATURES			
I	KFMXR01	35NDF	LI	EV 3 OPTI	ON2 WITH	FEL		LDT2			*		
				1	EMISSION CI	REDI	TINF	ORMATION					
	EDIT FO	X FLEET AVE. OR EXTENDED RRANTY		-	EDIT FOR N ZERO-EVAP	ON-P	I-PZEV NMOG CREDIT FOR DOR			~ 1	OPTIONAL EXH. STD FOR WORK TRUCKS		
		N			N				N		N		
				NMOG	AND FLEET	AVE	RAG	E INFORMA	TION				
NMOG RAF	CH4 RAF	FTP NMOG/NMHC RATIO	1	HO/NMHC RATIO NMOG+NOX FL PC+LDT (0-379 (g/mi)			0-3750 LVW)		_				
*	*	1.10		*	0	.072			0.083		*		

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. (As applicable, heavy-duty vehicles (HDV) over 14,000 pounds in GVWR listed in this Executive Order are certified to the requirements in 13 CCR Section 1961.2 applicable to MDV pursuant to 13 CCR Section 1956.8(c)(3) or 13 CCR Section 1956.8(h)(5), as applicable.)



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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 fleet average compliance requirement for NMOG+NOx or Vehicle Equivalent Credit (13 CCR Sections 1961.2(b)(1), 1961.2(b)(3), or 1961.2(c)(3), and the incorporated test procedures, as applicable), or Greenhouse Gas Emissions (13 CCR Section 1961.3, or 17 CCR Section 95663, and the incorporated test procedures, as applicable), for PC, LDT, MDPV or MDV 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).

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

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

		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	GASOLINE- TIER3 E10	0.0264	0.070	1.15	1.7	*	*	*	4	0.0009	0.003		
50°F @4K	GASOLINE- TIER3 E10	0.0482	0.140	0.17	2.1	*	*	0.8	16				

	FUEL TYPE	NMOG+N	Ox (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-TIER3 E10	0.0125	0.070			
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)			0.71	12.5	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC03	}	COMPOSITE		
	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	*	*		*	*			
@ 41.		STD	*	*		*	*			
		CERT	*	*	0.7	*	*	0.0292	1.01	*
(0)	GASOLINE- TIER3 E10	STD	*	*	6	*	*	0.090	4.2	*
		BIN						0.080		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FUEL TYPE			WHOLE						
	FUEL TYPE	3DHS	S (g/test)	@ UL	2DI	HS (g/test) (RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
KFMXR0135NDF	GASOLINE- TIER3 E10	0.1568	0.400	0.400	0.1481	0.400	0.400	0.000	0.05

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

	ORVR (g/gallon) @ UL			FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY				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			
KFMXR0135NDF	GASOLINE - TIER 2 UNLEADED	0.006	0.20	GASOLINE- TIER3 E10	*	*	*	*	0.014	0.020			



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EFFECTIV	E LEAK DIAMETER STANDA	ARD AND CERTIFICATION I	EVEL (INCHES)
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD
KFMXR0135NDF	KFMKR0135NDF-001	*	0.02

*: 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; 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; AER; all-electric range; EAER; equivalent AER; PHEV; plug-in hybrid electric vehicle

2019 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	ECS	OBD
FORD	EDGE AWD	LDT2	2.0	SA8	KFMXR0135NDF	1	P
FORD	EDGE FWD	LDT2	2.0	SA8	KFMXR0135NDF	1	P
LINCOLN	NAUTILUS AWD	LDT2	2.0	SA8	KFMXR0135NDF	1	P
LINCOLN	NAUTILUS FWD	LDT2	2.0	SA8	KFMXR0135NDF	1	P