

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-19-095;

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 YEA		EST GROUP		VEHIC	LE CLASS(E	ES) FUEL CATE			ATEGORY		FUEL TYPE		
2023	3 Р	FMXT02.72JQ			T.DT2				SINGLE FUEL HICLE		GASOLINE		
	USEFU	L LIFE (miles)		VEF	ICLE EMISS	ION (	CATEGORY INTERIM / IN				<b>TERMEDIATE IN-USE STD</b>		
EXH/ORVR EVAP					FTP		SFTP FTP				SFTP		
150000 150000			D	LEV3	ULEV70	LEV	3 C	OMPOSITE	*		PM		
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS								OBD S	TATUS	EN	ENGINE DISPLACEMENT (L)		
1	DFI, 2TWC, 2WR-HO2S, 2HO2S, 2TC, CAC							FULL	*				
*	*							PARTIAL	ALL MODELS		2.7		
*			*				PAF	RTIAL WITH FINES	*	]			
		E	VAPO	RATIVE &	REFUELING	(EVA	AP/OF	RVR) FAMIL					
EVA	EVAP / ORVR FAMILY EVAPORATIVE STD CATEGOR						(	EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES		
	PFMXR0135NDF LEV 3 OPTION2 WITH FEL							LDT2			*		
				I	EMISSION CI	REDI	T INF	ORMATION					
	NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY						ZEV	NMOG CREDIT FOR DOF			OPTIONAL EXH. STD FOR WORK TRUCKS		
		N			N				N		N		
				NMOG	AND FLEET	AVE	RAG		TION				
NMOG RAF	CH4 RAF	FTP NMOG/NMHO RATIO	C HCHO/NMHC RATIO NMOG+NOX FL PC+LDT (0-375 (g/mi)										
*	*	1.10		*	0	.044			0.047		*		

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.)



## 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 on this <u>22nd</u> day of August 2022.

Jolin U. Lang

Robin U. Lang, Chief Emissions Certification and Compliance Division



FUEL TYPE

# 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

				G+NOx mi)	-	O mi)		Ox mi)		HO /mi)		PM (g/mi)	
			CERT	STD	CERT	STD	CERT	STD	CERT	STD	CER	r std	
FTP@50K		*	*	*	*	*	*	*	*	*	*	*	
FTP@UL		OLINE- R3 E10	0.036	0.070	0.6	1.7	*	*	1	4	0.00	0 0.003	
50°F @4K	0°F @4K		*	*	*	*	*	*	*	*			
		FUEL TYPE						NMOG+NOx (g/mi)			CO (g/mi)		
				FUELITP	E		CE	RT	STD	CER	Т	STD	
HWFET @ 50K			*						*				
HWFET @	@ UL		GASOLINE-TIER3 E10					010	0.070				
20°F @ 50K		COLD	CO E10 RE	EGULAR G	ASOLINE	(TIER3)				0.6	5	12.5	

#### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

		SFT	P EXHAI	JST EM	ISSION	STANDA	ARDS	AND	CERTIFIC	ATION LE	VELS			
			US06						SC03		С	OMPOS	TE	
FUEL TYI	PE				CO (g/mi)					CO (g/mi)	NMOG+NC (g/mi)		-	PM (mg/mi)
*		ERT	*		*				*	*				
	S	STD	*		*				*	*			0 iii) 6 2 @ L S 0 EVEL CAN //tes	
	CERT		ΥT *		*	1	1		*	*	0.059	0.	6	*
		STD	*		*	e	5		*	*	0.063	4.	2	*
	I	BIN									0.090			
WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS														
				W	HOLE \	/EHICLE	EVAP	ORA	IVE TEST	ING				
ORATIVE	FUE	EL TYP	Ξ 3	BDHS (g	/test) @	) UL		2Dł	IS (g/test)	@ UL	F	RL (g/mi) @ UL		
			CEF	रम ः	STD	FEL	CEF	RΤ	STD	FEL	CE	RT	g/mi) @ UL STD 0.05 PN LEVELS	STD
R0135NDF			0 1	57 0	. 400	0.400	0.1	48	0.400	0.400	0.	00		
DRVR / FUE	EL ON	NLY / CA	NISTER	BLEED	<b>EVAP</b>	ORATIVE	EMIS	SION	STANDA	RDS AND	CERTIFICA	<b>ATION LI</b>	EVEI	_S
							FU	JEL C	NLY EVA	P & CANIS	STER BLEE	D		
ORATIVE MILY	OF	RVR (g/	gallon) (	DUL	FUE	L TYPE								
	FUEL	L TYPE	CERT	STD			CE	RT	STD	CERT	STD	CERT		STD
R0135NDF			0.01	0.20			*	r	*	*	*	0.014		0.020
	* GASOLIN: TIER3 E ORATIVE MILY 0135NDF DRVR / FUE ORATIVE MILY	* CASOLINE- TIER3 E10 CORATIVE ORATIVE ORATIVE ORVR / FUEL ON ORATIVE	FUEL TYPE FUEL TYPE CERT GASOLINE- TIER3 E10 CERT GASOLINE- TIER3 E10 CERT STD ENN FUEL TYPE ORATIVE ORATIVE ORVR / FUEL ONLY / CA ORATIVE ORATIVE ORVR (g/s FUEL TYPE CASOLINE-	FUEL TYPE     NMOG+N (g/mi)       *     CERT       *     STD       GASOLINE- TIER3 E10     STD       BIN     *       WHOLE VEHICLE EV. MILY     STD       0RATIVE MILY     FUEL TYPE       GASOLINE- TIER3 E10     0.1       ORATIVE MILY     GASOLINE- TIER3 E10     0.1       ORVR / FUEL ONLY / CANISTER     ORVR (g/gallon) (g       ORATIVE MILY     GASOLINE- TIER3 E10     0.0	FUEL TYPE         CERT         MMOG+NOx (g/mi)         U           *         CERT         *         STD         *           GASOLINE- TIER3 E10         STD         *         BIN         STD         *           WHOLE VEHICLE EVAPORA MILY         FUEL TYPE         3DHS (g         CERT         STD           0135NDF         GASOLINE- TIER3 E10         0.157         0           ORATIVE MILY         GASOLINE- TIER3 E10         0.157         0           ORVR / FUEL ONLY / CANISTER BLEED         ORVR (g/gallon) @ UL         STD           ORATIVE MILY         ORVR (g/gallon) @ UL         STD         STD	US06NMOG+NOX (g/mi)COFUEL TYPECERT** $*$ STD***GASOLINE- TIER3 E10STD***BIN $*$ ***WHOLE VEHICLE EVAPORATIVE E WHOLE VEHICLE EVAPORATIVE E ORATIVE MILYWHOLE VEHICLE EVAPORATIVE E VHOLE VORATIVE MILYGASOLINE- TIER3 E100.1570.400ORVR / FUEL ONLY / CANISTER BLEED EVAP ORVR (g/gallon) @ UL FUEL TYPEFUE 	US06         FUEL TYPE       NMOG+NOx       CO       PI $\star$ CERT       *       *       (g/mi)       (mg/mi) $\star$ STD       *       *       *       1         GASOLINE- TIER3 E10       STD       *       *       1         BIN       STD       *       *       6         BIN       STD       *       *       6         WHOLE VEHICLE EVAPORATIVE EMISSION         ORATIVE MILY       FUEL TYPE       STD       FEL         0135NDF       GASOLINE- TIER3 E10       0.157       0.400       0.400         ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE       FUEL TYPE       FUEL TYPE         ORATIVE MILY       ORVR (g/gallon) @ UL       FUEL TYPE       FUEL TYPE         0135NDF       GASOLINE- TIER3 E10       0.157       0.400       0.400         ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE       FUEL TYPE       FUEL TYPE         ORVR (g/gallon) @ UL       FUEL TYPE       FUEL TYPE         GASOLINE-       0.01       0.20       GASOLINE-	US06         FUEL TYPE       NMOG+NOx (g/mi)       CO (g/mi)       PM (mg/mi)         *       CERT       *       *       *         STD       *       *       *       *         GASOLINE- TIER3 E10       STD       *       *       1         BIN       CERT       *       *       6         BIN       *       *       6         WHOLE VEHICLE EVAPORATIVE EMISSION STAN         ORATIVE MILY       FUEL TYPE       3DHS (g/test) @ UL       CERT         \$0135NDF       GASOLINE- TIER3 E10       0.157       0.400       0.400       0.1         ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISTOR       FUEL TYPE       FUEL TYPE       FUEL TYPE       SD         ORVR (g/gallon) @ UL       FUEL TYPE       CERT       SD       FUEL TYPE       GASOLINE- (G       3D         ORATIVE MILY       ORVR (g/gallon) @ UL       FUEL TYPE       CERT       SD       GASOLINE- (G       3D         ORATIVE       GASOLINE-       0.01       0.20       GASOLINE- (G       A	FUEL TYPE         US06         PM         NMOG           *         CERT         *         CO         PM         NMOG           *         CERT         *         *         (g/mi)         (g/mi)	US06       SC03         FUEL TYPE       NMOG+NOx (g/mi)       CO (g/mi)       PM (g/mi)       NMOG+NOx (g/mi)       SC03         *       CERT       *       CO (g/mi)       (g/mi)       (g/mi)       (g/mi)       (g/mi)         *       CERT       *       *       *       *       *       *         GASOLINE- TIER3 E10       STD       *       *       *       6       *       *         GASOLINE- TIER3 E10       STD       *       *       6       *	US06       SC03         FUEL TYPE       NMOG+NOX (g/mi)       CO (g/mi)       PM (mg/mi)       NMOG+NOX (g/mi)       CO (g/mi)         *       CERT       *       *       *       *       *       *         STD       *       *       *       *       *       *       *       *         GASOLINE- TIER3 E10       STD       *       *       *       6       *       *         WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICA         MILY       FUEL TYPE       3DHS (g/test) @ UL       2DHS (g/test) @ UL       0.157       0.400       0.148       0.400       0.400         ORATIVE MILY       GASOLINE- TIER3 E10       0.157       0.400       0.400       0.148       0.400       0.400         ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CRATIVE MILY       FUEL TYPE       FUEL TYPE       FUEL TYPE       STD       FUEL TYPE       1.57       0.400       0.400       0.148       0.400       0.400         ORVR (g/gallon) @ UL       FUEL TYPE       FUEL TYPE       FUEL TYPE       GASOLINE-       X       X       X         ORATIVE       GASOLINE-       0.01       0.20       GASOLINE-       X	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)         NMOG+NOX (g/mi)         NMOLE         NMOLE         NMOLE         NMOLE         NMOLE         NMOLE	$      FUEL TYPE \  \  \  \  \  \  \  \  \  \  \  \  \ $	$      FUEL TYPE \begin{tabular}{ c c c c c c c } \hline US06 & SC03 & COMPOSITE \\ \hline NMOG+NOx & CO & (g/mi) & (mg/mi) & (g/mi) & (g/m$



EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)									
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD						
PFMXR0135NDF	PFMXR0135NDF-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; HP/LP EGR: High/Low Pressure EGR; 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; a hyphen (-) between after treatment ECS indicates multiple functionalities of the after treatment device (ex. DPF-SCRC: SCR coated DPF); 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; NMOG + NOx Fleet Ave. Credit for Extended Warranty: N = no credits, Y = credits, S = credits for some/select models

## 2023 MODEL YEAR: VEHICLE MODELS INFORMATION

					EVAPORATIVE	EXH	
MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	FAMILY	ECS	OBD
FORD	EDGE AWD	LDT2	2.7	SA8	PFMXR0135NDF	1	P
LINCOLN	NAUTILUS AWD	LDT2	2.7	SA8	PFMXR0135NDF	1	P