

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	DUP II	NFOR	MATION					
MODE YEAF		LE CLASS(E	S)		FUEL CATEGORY			FUEL TYPE					
2024	R	FMXT05.2AHS		LDT4 DED:				-	SINGLE FUEL HICLE		GASOLINE		
	USEFU	L LIFE (miles)		VEF	ICLE EMISS	CATE	GORY	INTERIM / IN	FERM	ERMEDIATE IN-USE STD			
EXH	I/ORVR	EVAP			FTP SI				FTP		SFTP		
15	50000	15000	0	LEV3	ULEV70	LEV	3 C	OMPOSITE	*		*		
SPECIAL FEATURES & EXHAUST EMISSION CONTRO SYSTEMS						L		OBD S	D STATUS		ENGINE DISPLACEMENT (L)		
1	21	WC, 2WR-HO2S	, 2но	2S, SFI,	CAC, SC			FULL	*				
*			*				F	PARTIAL ALL MODELS			5.2		
*			*				PAR	RTIAL WITH *					
EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION													
EVA	P / OR	VR FAMILY	PORATIVE	E STD CATE	GOR	(EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES			
1	RFMXR0	260NDV	LF	IV 3 OPTI	ION2 WITH	FEL		LI	т4		*		
				I	EMISSION CI	REDI	T INFO	ORMATION					
	EDIT F	OX FLEET AVE OR EXTENDED RRANTY		EDIT FOR N ZERO-EVAP	ON-P	ZEV	NMOG CREDIT FOR DOR			OPTIONAL EXH. STD FOR WORK TRUCKS			
		N			N			N N					
				NMOG	AND FLEET		RAG		TION				
NMOG RAF	CH4 RAF	FTP NMOG/NMHO RATIO	• • • • • •	HO/NMHC RATIO	C NMOG+NOX FLE PC+LDT (0-3750 (g/mi)								
*	*	1.10		*	0	.037		0.038 *					

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 $\underline{6th}$ day of December 2023.

Robin U. Lang

Robin U. Lang, Chief *O* 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

				6+NOx mi)	-	:O /mi)		Ox mi)		HCH mg/ı	-		PM ∣/mi)		
			CERT	STD	CERT	STD	CERT	STD	CER	Т	STD	CERT	STD		
FTP@50K		*	*	*	*	*	*	*	*		*	*	*		
FTP@UL	TIER	DLINE- 3 E10 REM	0.064	0.070	1.3	1.7	*	*	1		4	0.0006	0.003		
50°F @4K		*	*	*	*	*	*	*	*		*				
							NN	NMOG+NOx (g/mi)				CO (g/mi)			
	FUEL TYPE						CE	RT	STD		CER	г	STD		
HWFET @ 50K				*		*	•	*							
HWFET @ UL			GASOLIN	E-TIER3	0.0	29	0.070								
20°F @	50K	COLD C	O E10 PH	REMIUM G	ASOLINE					2.2		12.5			
			SFTP EXH	IAUST EN	IISSION S	TANDARD	S AND CE	RTIFICA	TION LE	EVEL	S	-			
	US06							SC03			CO	MPOSIT	E		
					~~				~~						

				US06						SC03		COMPOSITE			
	FUEL TY	PE	Ν	MOG+N (g/mi)		CO (g/mi)	Pl (mg/			DG+NOx g/mi)	CO (g/mi)	NMOG+NO (g/mi)	Ox CO (g/mi	PM) (mg/mi)	
@ 4K	*	CE	ERT	*	*		*			*	*				
			STD	*		*				*	*				
		CE	ERT	*		*	3	3		*	*	0.054	1.6	*	
@ UL	GASOLIN TIER3 E PREM		STD	*	*		* 6		* *		*	0.057	4.2	*	
		В	BIN									0.070			
	WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS														
				WHOLE VEHICLE EVAPORATIVE TESTING											
EVAPORATIVE FAMILY				5 3	3DHS (g/		/test) @ UL		2DHS (g/test) @ UL				RL (g/mi)	@ UL	
				CER	CERT		FEL	CER	Т	STD	FEL	CE	RT	STD	
RFMXF	R0260NDV	GASOLINE- TIER3 E10		0 22	0.221 0.500		0.500	0.19	8	0.500	0.50	0.	00	0.05	
(ORVR / FUE	EL ONL	LY / CA	NISTER	BLEED	EVAP	ORATIVE	EMISS	SION	STANDA	RDS AND	CERTIFIC/	ATION LE	/ELS	
	FUEL ONLY EVAP & CANISTER BLEED														
	ORATIVE AMILY	OR	RVR (g/g	gallon) @	allon) @ UL				0HS RIG TEST g/test) @ UL			RIG TEST t) @ UL		CANISTER (g/test) @ 4K	
		FUEL	. TYPE	CERT	STD			CER	R	STD	CERT	STD	CERT	STD	
RFMXF	R0260NDV		LINE- 3 E10	0.01	0.20		OLINE- R3 E10	*		*	*	*	0.011	0.020	



EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)												
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD									
RFMXR0260NDV	RFMXR0260NDV-001	*	0.02									
LDT<6000#GVWR,3751-575	0#LVW; LDT3: LDT 6001-850	0#GVWR,3751-5750#ALVW; LI	: LDT<6000#GVWR,0-3750#LVW; LDT2: DT4: LDT 6001-8500#GVWR,5751- 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; 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; cGPF (coated gasoline particulate filter); 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

2024 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL		VEH CLASS	LASS ENGINE (L) TRANS TYPE EVAPORATIVE FAMILY				OBD
FORD	F150 RAPTOR R	4WD	LDT4	5.2	SA10	RFMXR0260NDV	1	Р