

Executive Order: A-010-2229

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-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 GROUP INFORMATION														
MODE		TES	ST GROUP		VEHICLE CLASS(ES)				FUEL CATEGORY				FUEL TYPE		
2020		LFM	хD07.363н		F	MDV4		I			SINGLE FUEL HICLE	GASOLINE			
	USEF	UL I	LIFE (miles)		VEH	IICLE EMISS	ION C	ATEG	ORY	T	INTERIM / IN	TER	MEDIATE IN-USE STD		
EXI	H/ORV		EVAP			FTP		SF	ГР	7	FTP		SFTP		
1	50000	)	15000	0	LEV3	ULEV200	US06	s, sc	V (FULL 03, FTP YCLE)		*		*		
SPI	CIAL	FEA	TURES & E	(HAU STEN		ON CONTRO	L		OBD	s <sup>·</sup>	TATUS	E	NGINE DISPLACEMENT (L)		
1			2TWC, 2WR	-но2	S, 2HO2S,	SFI			FULL		*				
*				*	* PAR						ALL MODELS		7.3		
*				*				PARTIAL WITH * FINES							
			E	VAPO	ORATIVE &	REFUELING	(EVA	P/OR	VR) FAMI	L	/ INFORMATION	1			
EV	AP / O	RVR	FAMILY	EV	APORATIVE	STD CATE	GORY	,	EVAP EMISSION STD VEHICLE CLASS				SPECIAL FEATURES		
	LFMXF	R025	ОИНЈ	I	EV 3 OPTI	ON2 WITH	FEL			MD	V4		*		
	LFMXF	R036	ONHJ	I	EV 3 OPTI	ON2 WITH	FEL		i	ME	0V4		*		
					E	EMISSION C	REDIT	INFC	RMATIO	N					
	REDIT	FOF	FLEET AVE REXTENDED RANTY			REDIT FOR N ZERO-EVAP		ZEV	NMOG	С	REDIT FOR DO	₹	OPTIONAL EXH. STD FOR WORK TRUCKS		
		]	N			N					N		N		
					NMOG	AND FLEE	ΓΑ۷Ε	RAGE	INFORM	ΊA	TION				
NMOG RAF		CH4 RAF RATIO HCHO/NMHC RATIO HCHO/NMHC RATIO + MDPV (9				VW-8	500 G	TD NMC VW)MDV	)G (8	+NOX FLEET S <sup>-</sup> 501-10000 GVW (g/mi)	TD /R)	NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)			
*	*		1.10		*	0	.074				*		*		

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

day of November 2019.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 



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## **ATTACHMENT**

# EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP, HWFET, 50°F	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)				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	0.176	0.200	3.29	4.2	*	*	*	6	0.001	0.008
50°F @4K	*	*	*	*	*	*	*	*	*		action of the

		NMOG+N	lOx (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-TIER3 E10	0.103	0.200		eggi yazari in i	
20°F @ 50K	*		A	*	*	

### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC03	3	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	⊕ 4K *	CERT	*	*		*	*				
	E	STD	*	*		*	*				
		CERT	*	*	*	*	*	0.1571	3.0	2	
@ UL	GASOLINE- TIER3 E10	STD	*	*	*	*	*	0.800	22.0	10	
		BIN	Company and the second					*			

## WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE \	/EHICLE	EVAPORA	TIVE TESTI	NG		
EVAPORATIVE FAMILY	FUEL TYPE	3DHS (g/test) @ UL			2Dł	HS (g/test) (	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
LFMXR0250NHJ	GASOLINE- TIER3 E10	0.352	0.600	0.600	0.231	0.600	0.600	0.000	0.05
LFMXR0360NHJ	GASOLINE- TIER3 E10	0.377	0.600	0.600	0.356	0.600	0.600	0.000	0.05



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ORVR / FU	ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS												
				FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL		FUEL TYPE			IG TEST ) @ UL	The state of the s	RIG TEST est) @ UL		BLEED CANISTER TEST (g/test) @ 4K			
	FUEL TYPE	CERT	STD			CERT	STD	CERT	STD	CERT	STD		
LFMXR0360NHJ	GASOLINE- TIER3 E10	10 012	0.20		GASOLINE- TIER3 E10		*	*	*	0.013	0.030		
LFMXR0250NHJ	GASOLINE- TIER3 E10	10 040	0.20	GASOL TIER3		*	*	*	*	0.013	0.030		
	FFECTIVE	LEAK D	IAMET	ER STA	NDARI	O AND CE	RTIFICA	TION L	EVEL (IN	CHES)			
EVAPORATIVE	LY CERT				STD								

 EVAPORATIVE FAMILY
 LEAK FAMILY
 CERT
 STD

 LFMXR0360NHJ
 LFMXR0360NHJ-001
 \*
 0.02

 LFMXR0250NHJ
 LFMXR0250NHJ-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-</td>

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

## 2020 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
FORD	F250 PICKUP 2WD	MDV4	7.3	SA10	LFMXR0250NHJ	1	P
FORD	F250 PICKUP 2WD	MDV4	7.3	SA10	LFMXR0360NHJ	1	P
FORD	F250 PICKUP 4WD	MDV4	7.3	SA10	LFMXR0250NHJ	1	P
FORD	F250 PICKUP 4WD	MDV4	7.3	SA10	LFMXR0360NHJ	1	P
FORD	F350 PICKUP 2WD	MDV4	7.3	SA10	LFMXR0250NHJ	1	P
FORD	F350 PICKUP 2WD	MDV4	7.3	SA10	LFMXR0360NHJ	1	P
FORD	F350 PICKUP 4WD	MDV4	7.3	SA10	LFMXR0250NHJ	1	P
FORD	F350 PICKUP 4WD	MDV4	7.3	SA10	LFMXR0360NHJ	1	P