

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														
MOD YEA		TEST	TEST GROUP VEHICLE CLASS(ES)						FUEL C	FUEL CATEGORY FUEL TYPE				
202	1 1	MKMX	T02.5JP5			LDT2	DEDICATED SINGLE FUEL VEHICLE					GASOLINE		
USEFUL LIFE (miles) V						ICLE EMISS	ATE	GORY	INTERIM / INTERMEDIATE IN-USE STE					
EXH/ORVR EVAP						FTP		SF	FTP FTP			SFTP		
1	50000		150000		LEV3	ULEV70	LEV	3 C	OMPOSITE	*		PM		
SPECIAL FEATURES & EXHAUST EMISSION CONTRO SYSTEMS						ON CONTRO	L		OBD S	BD STATUS		ENGINE DISPLACEMENT (L)		
1	DFI, SFI, WR-HO2S, HO2S, TWC, TC, CAC								FULL	ALL MODELS				
*	*							F	ARTIAL *			2.5		
*	* *								RTIAL WITH *					
	EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION													
EV	EVAP / ORVR FAMILY EVAPORATIVE STD CATEGOR							·		EVAP EMISSION STD VEHICLE CLASS SPECIAL FEATUR				
	MKMXR(R0144	JPG		LEV 3	OPTION2		LDT2				HCT		
					E	EMISSION C	REDIT	r info	ORMATION					
			LEET AVE. EXTENDED			EDIT FOR N ZERO-EVAP	ON-P	ZEV				OPTIONAL EXH. STD FOR WORK TRUCKS		
		N				N				N N				
					NMOG	AND FLEET	AVE	RAG		TION				
NMOG RAF	PC+LDT (0-37				0-375		V) LDT	+NOX FLEET S (3751 LVW-850(R) + MDPV (g/m	5	MOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)				
*	* 1.10 * 0.058 0.065 *								*					

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 $\underline{29th}$ day of September 2020.

Allen Lyons, 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

			NMOG+NOx (g/mi)		CO (g/mi)			NOx (g/mi)		CHO g/mi)		PM (g/mi)		
			CERT STD CERT STD		CERT	STD	CERT	STD	CEF	रा	STD			
FTP@50K	к *		*	*	*	*	*	*	*	*	*		*	
FTP@UL	GASOLINE- TIER3 E10		0.036	0.070	0.6	1.7	*	*	*	4	0.0	01	0.003	
50°F @4K		SOLINE- R3 E10	0.029	0.140	0.2	1.7	*	*	*	16				
				FUEL TYP	E		NN	NMOG+NOx (g/mi) CO (g/mi)						
				FUEL ITP	E		CE	RT	STD	CER	CERT STD			
HWFET @ 50K				*		*		r i	*					
HWFET @	@ UL		GASOI	INE-TIEF	R3 E10		0.0	18	0.070					
20°F @ 50K		COLD (CO E10 RE	GULAR GA	ASOLINE	(TIER3)				0.6	5	:	12.5	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				LAUA		1000	1 JI AND					VLLO				
						US06				SC03		COMPOSITE				
	FUEL TYPE			NMOG+NOx		со	PI	м	NMC)G+NOx	со	NMOG+NC)x (0	PM	
				(g/mi)		(g/mi)	(mg	/mi)	(g/mi)	(g/mi)	(g/mi)	(g	/mi)	(mg/mi)	
@4K *		CEF	CERT			*	*			*	*					
-		ST	D	*		*				*	*					
			CERT			* 1			*		*	0.035	0	.5	*	
@ UL	GASOLIN TIER3 E		STD		*		* 6		*		*	0.077	4	.2	*	
		BI	N									0.070				
	WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS															
					W	HOLE \	VEHICLE	EVAPO	ORAT	FIVE TEST	ING					
	EVAPORATIVE FAMILY		UEL TYPE		PE 3DHS (g/		g/test) @ UL			IS (g/test)	@ UL	· ٦	RL (g/m	mi) @ UL		
							FEL	CER	т	STD	FEL	CE	RT		STD	
MKMXI	MKMXR0144JPG		LINE- E10	0.2	47 0	.400	*	0.23	35	0.400	*	0.	00	0.05		
(ORVR / FUI	EL ONLI	′ / CA	NISTER	BLEE) EVAP	ORATIVE	EMIS	SION	STANDA	RDS AND	CERTIFIC		LEVE	ELS	
								FU	EL C	NLY EVA	P & CANIS	STER BLEE	D			
	ORATIVE	ORVR (g/gal		gallon) @	llon) @ UL				HS RIG TEST g/test) @ UL			RIG TEST t) @ UL		ED CANISTER T (g/test) @ 4k		
		FUEL T	YPE	CERT	STD	7		CEF	रा	STD	CERT	STD	CER	Т	STD	
MKMXI	R0144JPG	GASOLI TIER3		0.01	0.20		OLINE- 73 E10	*		*	*	*	0.01	.0	0.020	



		I							
EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)									
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD						
MKMXR0144JPG	MKMXR0144JPG-MQ4	0.00	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

2021 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
KIA	SORENTO AWD	LDT2	2.5	AMS8	MKMXR0144JPG	1	F
KIA	SORENTO FWD	LDT2	2.5	AMS8	MKMXR0144JPG	1	F