

Executive Order: A-314-0412

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.

SYSTEMS		TEST GROUP INFORMATION												
VEHICLE			EST GROUP		VEHIC	LE CLASS(E	S)		FUEL CATEGORY			FUEL TYPE		
STP	2023	023 PKMXV01.6DC5 PC								•	GASOLINE			
150000	USEFUL LIFE (miles) VEHICLE EMISSION						ION C	I CATEGORY INTERIM / INTERMEDIATE IN-USE						
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS  DETT. WR-HO2S, HO2S, WU-TWC, TWC, TC, CAC, EGR, EGRC  * * * PARTIAL * PARTIAL WITH FINES  EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION  EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY EVAP EMISSION STD VEHICLE CLASS  PKMXR0133DCG LEV 3 OPTION2 PC HCT  EMISSION CREDIT INFORMATION  NMOG+NOX FLEET AVE. CREDIT FOR NON-PZEV CREDIT FOR EXTENDED WARRANTY  N N N N N N N N  NMOG CREDIT FOR DOR OPTIONAL EXH. STD FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG AND FLEET AVERAGE INFORMATION  NMOG CH4 RAF NMOG/NMHC RATIO  NMOG/NMHC RATIO  NMOG+NOX FLEET STD NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi)  NMOG CH4 RAF NMOG/NMHC RATIO  NMOG+NOX FLEET STD MDG/NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi)  NMOG GVWR) (g/mi)	EXH	/ORVR	EVAP			FTP		SF	TP	FTP		SFTP		
SYSTEMS	15	0000	150000		LEV3	ULEV70	LEV	3 CC	MPOSITE	*		PM		
The control of the	SPE	CIAL FE				ON CONTRO	L		OBD S	TATUS	E	ENGINE DISPLACEMENT		
* * * * * * * * * * * * * * * * * * *	1						Ξ,		FULL	ALL MODELS				
EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION  EVAP / ORVR FAMILY EVAPORATIVE STD CATEGORY EVAP EMISSION STD VEHICLE CLASS  PKMXR0133DCG LEV 3 OPTION2 PC HCT  EMISSION CREDIT INFORMATION  NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY  NMOG CREDIT FOR NON-PZEV ZERO-EVAP  NMOG AND FLEET AVERAGE INFORMATION  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR POPTIONAL EXH. STD FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CH4 RAF NMOG/NMHC RATIO NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi)  NMOG GVWR) (g/mi)	*	* *						Р	ARTIAL	*		1.6		
EVAP / ORVR FAMILY  EVAPORATIVE STD CATEGORY  EVAP EMISSION STD VEHICLE CLASS  PKMXR0133DCG  LEV 3 OPTION2  EMISSION CREDIT INFORMATION  NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY  NMOG AND FLEET AVE. NMOG CREDIT FOR NON-PZEV ZERO-EVAP  NMOG AND FLEET AVERAGE INFORMATION  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR OPTIONAL EXH. STD FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CH4 RAF NMOG/NMHC RATIO  NMOG-NOX FLEET STD LDT (3751 LVW-8500) GVWR) + MDPV (g/mi)  MMOG CWR) (g/mi)	*	* *								*				
PKMXR0133DCG  LEV 3 OPTION2  EMISSION CREDIT INFORMATION  NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY  N  N  N  N  N  N  N  N  N  N  N  N  N			Ε\	'APOI	RATIVE &	REFUELING	(EVA	P/OR	VR) FAMILY	/ INFORMATIO	N			
EMISSION CREDIT INFORMATION  NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY  NMOG CREDIT FOR NON-PZEV ZERO-EVAP  NMOG CREDIT FOR NON-PZEV NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CH4 RAF RAF RAF RATIO  NMOG/NMHC RATIO  NMOG-NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi)  NMOG-NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)	EVA	P / ORV	R FAMILY	EVA	PORATIVE	IVE STD CATEGORY				s	SPECIAL FEATURES			
NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY  NMOG CREDIT FOR NON-PZEV ZERO-EVAP  NMOG CREDIT FOR DOR OPTIONAL EXH. STD FOR WORK TRUCKS  N  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR N  N  N  N  N  N  N  N  N  N  N  N  N	P	KMXR01	33DCG		LEV 3	OPTION2	ON2 PC				HCT			
CREDIT FOR EXTENDED WARRANTY  NMOG CREDIT FOR NON-PZEV ZERO-EVAP  NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR FOR WORK TRUCKS  NMOG AND FLEET AVERAGE INFORMATION  NMOG CREDIT FOR DOR NMOG WORK TRUCKS					I	EMISSION C	REDIT	INFO	ORMATION					
NMOG AND FLEET AVERAGE INFORMATION  NMOG CH4 RAF NMOG/NMHC RATIO  NMOG/NMHC RATIO  NMOG+NOX FLEET STD NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)  NMOG+NOX FLEET STD NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) (g/mi)	1	EDIT FO	R EXTENDED				ON-P	ZEV	NMOG CREDIT FOR DOR					
NMOG RAF RAF RAF RATIO    NMOG/NMHC RATIO   NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)   NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)   NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)			N			N				N		N		
NMOG RAF         CH4 RAF         NMOG/NMHC RATIO         HCHO/NMHC RATIO         PC+LDT (0-3750 LVW) (g/mi)         LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)         MDV (10,001-14,000 GVWR) (g/mi)					NMOG	AND FLEET	AVE	RAGE	INFORMA	TION				
+ + 1 10 + 0 044 0 047		CH4 NMOG/NMHC HCHO/NMHC PC+LDT (0-37)			0-375		LVW) LDT (3751 LVW-8500		0	MDV (10,001-14,000				
^	*	*	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.)



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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 on this 14th day of June 2022.

Allen Lyons, Chief

Golma Sahi for

**Emissions Certification and Compliance Division** 

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# **ATTACHMENT**

## **EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS**

<b>EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTI</b>	, HWFET	, 50°F, 20°F)
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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)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
FTP@50K	*	*	*	*	*	*	*	*	*	*	*	
FTP@UL	GASOLINE- TIER3 E10	0.028	0.070	0.3	1.7	*	*	*	4	0.001	0.003	
50°F @4K	GASOLINE- TIER3 E10	0.031	0.140	0.1	1.7	*	*	*	16			

	FUEL TYPE	NMOG+N	Ox (g/mi)	CO (g/mi)		
	FUELTIFE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-TIER3 E10	0.014	0.070			
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)			0.6	10.0	

### SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC03	3	COM	IPOSITE	
	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	*	*		*	*			
		STD	*	*		*	*			
		CERT	*	*	2	*	*	0.036	0.4	*
@ UL	GASOLINE- TIER3 E10	STD	*	*	6	*	*	0.063	4.2	*
		BIN						0.070		

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

	FUEL TYPE		WHOLE \						
EVAPORATIVE FAMILY		3DHS (g/test) @ UL			2DI	HS (g/test) (	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
PKMXR0133DCG	GASOLINE- LEV3 E10	0.156	0.300	*	0.145	0.300	*	0.00	0.05

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

				FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL		FUEL TYPE	3DHS R (g/test	IG TEST ) @ UL	2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K				
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
PKMXR0133DCG	GASOLINE- TIER3 E10	0.03	0.20	GASOLINE- LEV3 E10	*	*	*	*	0.003	0.020		



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EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)								
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD					
PKMXR0133DCG	PKMXR0133DCG-DL3	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

## 2023 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
KIA	K5	PC	1.6	SA8	PKMXR0133DCG	1	F
KIA	K5 AWD	PC	1.6	SA8	PKMXR0133DCG	1	F