

### HYUNDAI MOTOR COMPANY

Executive Order: A-254-0443

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 GR	OUP IN	FORM	MATION				
MODE	- 1 11	EST GROUP		VEHICLE CLASS(ES)			FUEL C	ATEGORY	FUEL TYPE			
2021	МН	XV01.6BC5			PC DED:				SINGLE FUEL HICLE	GASOLINE		
	USEFUL	LIFE (miles)		VEH	ICLE EMIS	SION	CATEGORY INTERIM / INT			ERMEDIATE IN-USI	ESTD	
EXH	/ORVR	EVAP			FTP		SFT	SFTP FTP		SFTP		
15	0000	150000		LEV3	ULEV70	LEV	3 CO	MPOSITE	*	PM		
SPE	CIAL FE	ATURES & EXI	HAUS'		ON CONTRO	DL		OBD S	TATUS	ENGINE DISPLAC	EMENT	
1	DFI, N	WU-TWC, TWC,	WR-H	102S, HO	2S, TC, C	AC		FULL	ALL MODELS			
*	* *						PA	ARTIAL	*	1.6		
*	* *							IAL WITH	*	•		
		EV	APOR	RATIVE &	REFUELING	G (EVA	P/OR\	/R) FAMILY	INFORMATION			
EVA	P / ORV	RFAMILY	EVAF	PORATIVE	STD CATE	GORY	-		SSION STD E CLASS	SPECIAL FEATUR	RES	
M	HYXR01	10BCE		L	EV 2	V 2 PC			С	*		
				E	EMISSION C	REDIT	INFO	RMATION				
	EDIT FO	X FLEET AVE. OR EXTENDED RRANTY	1		EDIT FOR I		PZEV NMOG		REDIT FOR DOR	OPTIONAL EXH. STD FOR WORK TRUCKS		
	N · N						N			N		
				NMOG	AND FLEE	T AVE	RAGE	INFORMA	TION			
MOG RAF	NMOG/NMHC I			O/NMHC RATIO	NMOG+NOX FLEET S PC+LDT (0-3750 LV (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.)



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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

11

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 

day of February 2020.



20°F @ 50K

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## **ATTACHMENT**

E	XHAUST A	ND EVAP	ORATIVI	E EMISS	ION ST	ANDARD	S AND	CERTIFI	CATION	I LEVEL	S
	EXHAUS	T EMISSIO	N STAND	ARDS AND	CERTIF	ICATION L	EVELS (	FTP, HWFE	T, 50°F, 2	20°F)	
	CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 F monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter; R adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi] ORVR [g HC/gallon dispensed]: on-board refueling vapor recovery; g: gram; mg: mil 1000 miles; F: degrees Fahrenheit; FTP: federal test procedure; SFTP: supplemental factors and the supplemental factors are not supplemental formal factors.							RAF: reacting: running liniligram; mi	ivity loss;		
			G+NOx mi)		O mi)	N( (g/i	Ox mi)		HO /mi)		PM /mi)
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE- TIER3 E10	0.046	0.070	0.6	1.7	*	*	*	4	0.001	0.003
50°F @4K	GASOLINE- TIER3 E10	0.040	0.140	0.3	1.7	*	*	*	16		1000
	Aller.		FUEL TYP	-	1	NN	IOG+NO	x (g/mi)		CO (g/mi	)
			FUEL 11P	E		CEI	RT	STD	CER	₹T	STD
HWFET @	50K		*			*		*	W4 121 a	Design the	11年海南市
HWFET @	UL	GASO	LINE-TIER	R3 E10		0.0	27	0.070	TE LUAN		

## COLD CO E10 REGULAR GASOLINE (TIER3) 0.6 10.0 SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC03		COM	POSITE	
	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	*	*		*	*		F-17 1/2	
		CERT	*	*	2	*	*	0.059	0.7	*
@ UL	GASOLINE- TIER3 E10	STD	*	*	6		*	0.077	4.2	*
		BIN						0.070		ANTES

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS WHOLE VEHICLE EVAPORATIVE TESTING **EVAPORATIVE** RL (g/mi) @ UL **FUEL TYPE** 3DHS (g/test) @ UL 2DHS (g/test) @ UL **FAMILY** CERT STD FEL CERT STD FEL CERT STD GASOLINE -\* \* MHYXR0110BCE 0.24 0.50 0.29 0.65 0.02 0.05 CA PHASE 2

ORVR / FU	EL ONLY / CA	NISTER	BLEED	EVAPORATIVE	EMISSION	STANDA	RDS AND	CERTIFIC	ATION LEV	ELS		
				FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/gallon) @ UL			FUEL TYPE	3DHS RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTI TEST (g/test) @			
	<b>FUEL TYPE</b>	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
MHYXR0110BCE	GASOLINE - TIER 2 UNLEADED	0.06	0.20	*	*	*	*	*	*	*		



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EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)							
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD				
	12 B/88 2 FT - 5000 000	Late with a cold repair to the	Parameter of the second				

': 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; GWWR: 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	ECS	OBD
HYUNDAI	VELOSTER	PC	1.6	М6	MHYXR0110BCE	1	F
HYUNDAI	VELOSTER	PC	1.6	AMS7	MHYXR0110BCE	1	F