

HYUNDAI MOTOR COMPANY

Executive Order: A-254-0381

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-14-012;

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	UP IN	NFOR	MATION					
MOD YEA		TEST GROUP		VEHICLE CLASS(ES)			FUEL CATEGORY			FUEL TYPE			
201	9 K	HYXV03.3NJF			PC				SINGLE FUEL HIC LE		GASOLINE		
	USEFU	JL LIFE (miles)		VEH	IICLE EMISS	ION C	ATE	GORY	Y INTERIM / INTERMEDIATE IN-USE S				
EX	H/ORVR	R EVAP			FTP		SF	TP	FTP		SFTP		
1	20000	15000	D	LEV	72 ULEV LEV 2 SF				*		*		
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS						L		OBD STATUS			ENGINE DISPLACEMENT		
1	1 2HO2S(2), 2WU-TWC, TWC, DFI							FULL	SOME MODELS	1			
*	*							ARTIAL	SOME MODELS		3.3		
* *								TIAL WITH FINES	*				
	EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION												
EV	EVAP / ORVR FAMILY EVAPORATIVE STD CATEGOR							Y EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES		
	KHYXR0	135NJE		L	LEV 2			I	PC		*		
					EMISSION CI	REDIT	r INFO	RMATION					
	REDIT F	OX FLEET AVE OR EXTENDED ARRANTY			EDIT FOR N	ON-P	NMOG CREDIT FOR DO			OPTIONAL EXH. STD FOR WORK TRUCKS			
		N			N		И				N		
				NMOG	AND FLEET	AVE	RAGE	INFORMA	TION				
NMO0 RAF	CH4 RAF	FTP NMOG/NMH0 RATIO	HC	CHO/NMHC RATIO	HC NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)								
*	*	1.04		*	0	. 072			0.083		*		

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.



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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

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division



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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 CO NOX HCHO PM
(g/mi) (g/mi) (g/mi)

		NMOG (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	GASOLINE - TIER 2 UNLEADED	0.022	0.040	0.7	1.7	0.00	0.05	*	8		٠	
FTP@UL	GASOLINE - TIER 2 UNLEADED	0.025	0.055	1.1	2.1	0.00	0.07	•	11	*	0.01	
50°F @4K	GASOLINE - TIER 2 UNLEADED	0.037	0.080	0.3	1.7	0.00	0.05	*	16			

	FUEL TYPE	NOx	(g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	GASOLINE - TIER 2 UNLEADED	0.01	0.07			
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.02	0.09			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE			1.0	10.0	

		SF	TP EXHAUST E	MISSION S	TANDARDS	AND CERTIFIC	ATION L	EVELS		
					SC03	3	COMPOSITE			
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/ml)	NMHC+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi
@ 4K	GASOLINE - TIER 2 UNLEADED	CERT	0.05	1.3		0.02	0.1			-
e		STD	0.14	8.0	1000	0.20	2.7		CO '	
		CERT	*	*	*	*	*	0.036	* .	*
@ UL	GASOLINE - TIER 2 UNLEADED	STD	*	*		*	*	0.090	*	*
		BIN						0.130		

	WHOLE VEHICL	E EVAPO	PRATIVE E	MISSION	STANDAR	DS AND CE	RTIFICATIO	N LEVELS	41.2
			WHOLE						
EVAPORATIVE FAMILY	FUEL TYPE	3DHS	S (g/test) (@ UL	2DI	HS (g/test) (RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
KHYKR0135NJE	GASOLINE - CA PHASE 2	0.37	0.50	*	0.31	0.65	*	0.01	0.05



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					FUEL ONLY EVAP & CANISTER BLEED								
EVAPORATIVE FAMILY	ORVR (g/g	jallon) (UL	FUEL TYPE	3DHS RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 48				
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD			
KHYKR0135NJE	GASOLINE - TIER 2 UNLEADED	2 0.02 0.		•		*	•	*	*	*			
	EFFECTIVE L	EAK D	IAMET	ER STANDARI	D AND CE	RTIFICA	TION LEV	EL (INCH	IES)				
EVAPORATIVE FAMILY		LEAK FAMIL		Y CERT			STD						
			*										

*: 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; 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; 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

2019 MODEL YEAR: VEHICLE MODELS INFORMATION **EVAPORATIVE EXH** TRANS TYPE **VEH CLASS** ENGINE (L) OBD MAKE MODEL FAMILY **ECS** HYUNDAI PC 3.3 SA6 KHYXR0135NJE 1 F SANTA FE XL AWD PC 3.3 SA6 KHYXR0135NJE 1 F HYUNDAI SANTA FE XL FWD SANTA FE XL 1 F HYUNDAI PC 3.3 SA6 KHYXR0135NJE ULTIMATE AWD SANTA FE XL KHYXR0135NJE 1 P ULTIMATE AWD PC 3.3 SA6 HYUNDAI (W/SCC) SANTA FE XL PC SA6 KHYXR0135NJE 1 F 3.3 HYUNDAI ULTIMATE FWD SANTA FE XL KHYXR0135NJE 1 P 3.3 SA6 HYUNDAI ULTIMATE FWD PC (W/SCC)