

Executive Order: A-254-0611

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 1 of 4

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								FUEL CATEGORY			FUEL TYPE	
2024 RHYXV02.0E13 PC							HYBRID ELECTRIC VEHICLE				GASOLINE	
USEFUL LIFE (miles) VEHICLE EMISSION						ION C	CATEC	ORY	INTERIM / IN	TERM	IEDIATE IN-USE STD	
EXH/ORVR EVAP FTP						SFTP FTP				SFTP		
15	50000	150000		LEV3	SULEV30	LEV	3 CC	COMPOSITE *			*	
SPE	CIAL FE	ATURES & EXI	IAUS TEMS		ON CONTRO	L		OBD S	TATUS	EN	GINE DISPLACEMENT (L)	
1 DFI, WR-HO2S, HO2S, WU-TWC, TWC, EGR, EGRC						RC		FULL	ALL MODELS			
*	* *						P	ARTIAL	* 2.0		2.0	
* *						1	TIAL WITH FINES	*				
	EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION											
EVA	AP / ORV	R FAMILY	EVA	PORATIVE	STD CATE	GORY	,		SSION STD E CLASS	SF	PECIAL FEATURES	
]	RHYXR01	18E1G		LEV 3	OPTION2		PC HC			нст		
				ı	EMISSION CI	REDIT	INFC	RMATION				
	REDIT FO	X FLEET AVE. OR EXTENDED RRANTY			REDIT FOR N ZERO-EVAP	ON-P	-PZEV NMOG CREDIT FOR DOR			OPTIONAL EXH. STD FOR WORK TRUCKS		
n n								N		N		
				NMOG	AND FLEET	AVE	RAGE	INFORMA	TION			
NMOG CH4 RAF NMOG/NMHC RATIO HCHO/NMHC RATIO NMOG+NOX FI PC+LDT (0-37 (g/mi				0-375		) LDT	+NOX FLEET S (3751 LVW-8500 R) + MDPV (g/m	)	MOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)			
*	*	1.10		*	0	.037			0.038		*	

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.)



Executive Order: A-254-0611

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 2 of 4

### 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 //t/ day of December 2023.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

Robin U. Lang

Executive Order: A-254-0611

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 3 of 4

# **ATTACHMENT**

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

EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP. 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

FUEL TYP	Е
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		NMOG (g/i	_	C (g/i	O mi)	N( (g/	_	HC (mg	_	P (g/	M mi)
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE- TIER3 E10	0.026	0.030	0.2	1.0	*	*	*	4	0.001	0.003
50°F @4K	GASOLINE- TIER3 E10	0.019	0.060	0.2	1.0	*	*	*	8		

	FUEL TYPE	NMOG+N	Ox (g/mi)	CO (g/mi)		
	FUELTIFE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*			
HWFET @ UL	GASOLINE-TIER3 E10	0.021	0.030			
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)			0.7	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	*	*	0	*	*	0.021	0.1	*
@ UL	GASOLINE- TIER3 E10	STD	*	*	6	*	*	0.057	4.2	*
		BIN						0.030		

### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE \	/EHICLE	EVAPORA <sup>*</sup>	/APORATIVE TESTING					
EVAPORATIVE FAMILY	FUEL TYPE	3DH	S (g/test) @	) UL	2DI	HS (g/test) (	@ UL	RL (g/n	ni) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD		
RHYXR0118E1G	GASOLINE- LEV3 E10	0.224	0.300	*	0.182	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 RIG TEST (g/test) @ UL		2DHS RIG TEST (g/test) @ UL		BLEED CANISTER TEST (g/test) @ 4K			
	<b>FUEL TYPE</b>	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
RHYXR0118E1G	GASOLINE- TIER3 E10	0.01	0.20	GASOLINE- LEV3 E10	*	*	*	*	0.013	0.020		



Executive Order: A-254-0611

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Page 4 of 4

EFFECTI\	EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)								
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD						
RHYXR0118E1G	RHYXR0118E1G-DNH	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; cGPF (coated gasoline particulate filter); 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; AIŔ/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

# 2024 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
HYUNDAI	SONATA HYBRID	PC	2.0	AMS6	RHYXR0118E1G	1	F
HYUNDAI	SONATA HYBRID BLUE	PC	2.0	AMS6	RHYXR0118E1G	1	F