

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 GRO	UP II	NFOR	MATION					
MOD YEA		TES	T GROUP		VEHIC	LE CLASS(E	(ES) FUEL CATEGORY					FUEL TYPE		
202	2	NHYX	V05.0JM5			PC DEDICATED SINGLE FUE VEHICLE					GASOLINE			
USEFUL LIFE (miles)						EHICLE EMISSION CATEGORY				INTERIM / IN	TER	ERMEDIATE IN-USE STD		
EXH/ORVR EVAP						FTP		SF	FTP FTP			SFTP		
150000 150000					LEV3	ULEV70	LEV	3 C	OMPOSITE	*		PM		
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS							L		OBD S	TATUS	E	ENGINE DISPLACEMENT (L)		
1	DFI, 2WR-HO2S, 2HO2S, 2WU-TWC, 2TWC								FULL	JLL *				
*	*							F	PARTIAL ALL MODELS			5.0		
*	* *								RTIAL WITH *					
EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION														
EV	EVAP / ORVR FAMILY EVAPORATIVE STD CATEGOR							(SSION STD E CLASS	S	SPECIAL FEATURES		
	NHYXR	0140	JMG		LEV 3	OPTION2			1	HCT				
			·		E	EMISSION CH	REDI	T INFO	ORMATION					
	NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY						ON-P	ZEV	NMOG CREDIT FOR DOR			OPTIONAL EXH. STD FOR WORK TRUCKS		
		N				N				N N				
					NMOG	AND FLEET	AVE	RAG	E INFORMA	TION				
NMOG RAF	CH4 RAF	- N	FTP MOG/NMHC RATIO	DG/NMHC HCHO/NMHC PC+LDT (0-37								D NMOG+NOX FLEET STD MDV (10,001-14,000 GVWR) (g/mi)		
*	*		1.10		*	0	.051			0.056		*		

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 <u>30th</u> day of April 2021.

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)		HCF (mg/			PM (g/mi)	
			CERT	STD	CERT STD C		CERT	STD	STD CER		STD	CERT		STD
FTP@50K	*		*	*	*	*	*	*	*		*	*		*
FTP@UL	GASOLINE- TIER3 E10		0.034	0.070	0.5	1.7	*	*	*		4	0.0	01	0.003
50°F @4K		SOLINE- R3 E10	0.044	0.140	0.6	1.7	*	*	*		16			
					F	NN	NMOG+NOx (g/mi)			CO (g/mi)				
				FUEL TYP	76		CE	RT	STD		CER	Т		STD
HWFET @ 50P				*			*		*					
HWFET @ UL		GASOLINE-TIER3 E10						16	0.07	D				
20°F @ 50K		COLD (CO E10 RE	GULAR G	ASOLINE	(TIER3)					1.5	5	1	10.0

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

			361			1133101	ISTANDA	ARDS F	AND	CERTIFIC		VELO			
						US06				SC03		C	OMPOSIT	E	
	FUEL TY	PE		NMOG+N (g/mi)		CO (g/mi)	Pl (mg/			DG+NOx g/mi)	CO (g/mi)	NMOG+NO (g/mi)	x CO (g/mi	PM) (mg/mi)	
@ 4K	*	* CERT		*		*				*	*				
•			STD	*		*				*	*				
	@ UL GASOLINE- TIER3 E10		CERT			* 2		2	*		*	0.034	0.4	*	
@ UL			STD	*		* 6		5	*		*	0.070	4.2	*	
			BIN									0.070			
		ωно	DLE VEH	ICLE EV	APOR	ATIVE E	MISSION	STAN	DAR	DS AND C	ERTIFICA	TION LEVE	LS		
WHOLE VEHICLE EVAPORATIVE TESTING															
	EVAPORATIVE FAMILY		EL TYP	E 3	3DHS (g		(g/test) @ UL STD FEL		2DHS (g/test)			F	RL (g/mi) @ U		
				CERT		STD			ERT STD		FEL	CEI	RT	STD	
NHYXR0140JMG			SOLINE EV3 E10	102	41 0	.300	*	0.20)4	0.300	*	0.0	01	0.05	
(ORVR / FUI		NLY / CA	NISTER	BLEE	D EVAP	ORATIVE	EMISS	SION	STANDA	RDS AND	CERTIFICA	TION LEV	/ELS	
								FU	EL C	ONLY EVA	P & CANIS	TER BLEE	D		
	ORATIVE AMILY	ORVR (g/g		gallon) (lon) @ UL		-		HS RIG TEST g/test) @ UL		-	RIG TEST t) @ UL	-		
		FUE	L TYPE	CERT	STD			CEF	RT	STD	CERT	STD	CERT	STD	
NHYXI	R0140JMG		OLINE- R3 E10	0.06	0.20		OLINE- 73 E10	*		*	*	*	0.006	0.020	



EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)									
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD						
NHYXR0140JMG	NHYXR0140JMG-HI1	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

2022 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD
GENESIS	G90 AWD	PC	5.0	SA8	NHYXR0140JMG	1	P
GENESIS	G90 RWD	PC	5.0	SA8	NHYXR0140JMG	1	Р