

## TOYOTA MOTOR CORPORATION

Executive Order: A-014-1078

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 GRO	OUP II	NFOF	MATION						
MODI		TEST GROUP			VEHICLE CLASS(ES)			FUEL (	FUEL CATEGORY			FUEL TYPE		
202	1 M	TYXT03.5P34		LDT2					ELECTRIC HICLE		GASOLINE			
	USEFU	L LIFE (miles)		VE	VEHICLE EMISSION CATEGOR				INTERIM / I	NTE	ERMEDIATE IN-USE STD			
EXI	H/ORVR	EVAP			FTP SF1			TP	FTP			SFTP		
1	50000	150000		LEV3	SULEV30	LEV30 LEV 3 COMPO			*		PM			
SPECIAL FEATURES & EXHAUST EMISSION CONTROL SYSTEMS								OBD STATUS				ENGINE DISPLACEMENT (L)		
DFI, SFI, EGR, EGRC, 2WR-HO2S, 2TWC, 2HO2S, TWC								FULL	ALL MODELS					
*	*							ARTIAL	*		3.5			
*					PAR	TIAL WITH								
EVAPORATIVE & REFUELING (EVAP/ORVR) FAMILY INFORMATION														
EVA	EVAP / ORVR FAMILY EVAPORATIVE STD CATEGOR								VAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES		
ŀ	ATYXR01	.90E82	LEV 3	EV 3 OPTION2			LDT2			HCT				
					EMISSION CR	REDIT	INFO	RMATION						
NMOG+NOX FLEET AVE. CREDIT FOR EXTENDED WARRANTY  NMOG CREDIT FOR NON ZERO-EVAP						ON-P	ZEV	NIMIOG CREDIT FOR DOR			OPTIONAL EXH. STD FOR WORK TRUCKS			
	N N							и и						
NMOG AND FLEET AVERAGE INFORMATION														
NMOG RAF	F RAF NMOG/NMHC RATIO PC+LDT (							W) LDT (3751 LVW-8500 MDV (10,001			OG+NOX FLEET STD IDV (10,001-14,000 GVWR) (g/mi)			
*	* 1.10 0.021 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.)



## TOYOTA MOTOR CORPORATION

Executive Order: A-014-1078

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 day of July 2020.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 



TOYOTA MOTOR CORPORATION

Executive Order: A-014-1078 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles Page 3 of 4

## **ATTACHMENT**

	EXH	IAU	ST AN	D EV	/APO	RATI	VE EMIS	SION	STA	NDAR	DS AN	ID C	ERTIFI	CATIO	N LE	VELS	3	
		EX	(HAUS	r emis	SSION	STAN	DARDS A	ND CE	RTIFIC	CATION	LEVELS	S (FTF	, HWFE	T, 50°F,	20°F)			
	Fl		TYPE	CH4: mono adjust ORVF	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)			HO /mi)		PM (g/mi)		
			CERT STD		CERT	S	TD	CERT	CERT STD		CERT	STD	CE	RT	STD			
FTP@5			*		*	*		*	*	*		*	*	*		*		
FTP@	FTP@UL LEV3 E10 PREM		0.02	12	0.030	0.09	1	.0	*	*		*	4	0.0005		0.003		
50°F @	4K	*		*		*	*	,	t	*	*		*	*				
ELECTVI						'DF				NMOG+NOx (g/		/mi)		CO (g/mi)				
		-		FUEL TYPE					CE	RT	5	STD	CEI	CERT		STD		
HWFE	T @ 50H	4		*						t .	*							
HWFET @ UL GASOL:					OLINE-LEV3 E10 PREM					0.0	102	0	0.030					
20°F@50K COLD CO E10 PREMIUM G												0.94 12.5						
				SFTP	EXHA	UST E	MISSION	STAND	ARDS	AND C			N LEVE					
	CHE	UEL TYPE		E AIB		NMOG+NOx CO PM				NIMOC	SC03 NMOG+NOx CO			NMOG+NOx			CO PM	
	FUEL			Fen	(g/mi)		(g/mi)				(g/mi)		ni)   nin	(g/mi)		/mi)	(mg/mi)	
@ 4K	@AK *		CERT		*		*			,		*						
		S			*		*		***************************************	† ,		*	_					
		ASOLINE- EV3 E10 STI		Т	*		*	0	. 5	,		*		0.0231		.09	*	
@ UL	LEV3				*	and a few states of the states	*		6	,		*		0.077	4.2		*	
			BIN											0.040				
		W	HOLE	/EHIC	LE EV		ATIVE EM	Carried by Carrie					FICATIO	ON LEVE	LS			
EVA D		_			-	V	HOLE VE	HOLE VEHICLE EVAP			ORATIVE TESTING			DI (-() 0 III				
	ORATIV MILY		FUEL TYPE		'PE 3DHS (g/t			/test) @ UL			2DHS (g/test) @		<u> </u>		KL (g/n	(g/mi) @ UL		
		_			CEF	RT	STD	FEL	CE	RT	STD		FEL	CEI	RT	;	STD	
MULAXBUL GUESS I		GASOL TIER3	10 17421 0			.400	100 * 0.1						0.004			0.05		
C	RVR / F	UEL	ONLY	/ CAN	ISTER	BLEE	D EVAPO	RATIV								LEVE	LS	
F1 / A F			E ORVR (g/gal			2111					EL ONLY EVAP & CANIST							
EVAPORATIVE FAMILY						g/gallon) @ UL				HS RIG TEST // (test) @ UL		1	g/test) @			(g/test) @ 4K		
		F	UEL TY	PE C	CERT	STD	_	1		RT			RT	STD	CER	Т	STD	
MTYXR	0190E8		ASOLII IER3 I				*	*		*	* *		*	*		* *		



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New Passenger Cars, Light-Duty Trucks and

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Page 4 of 4

EFFECTIVE LEAK DIAMETER STANDARD AND CERTIFICATION LEVEL (INCHES)										
EVAPORATIVE FAMILY	LEAK FAMILY	CERT	STD							
MTYXR0190E82	MTYXR0190E82-001	*	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

#### 2021 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH	OBD
LEXUS	RX 450H AWD	LDT2	3.5	scv6	MTYXR0190E82	1	F