

# TOYOTA MOTOR CORPORATION

Executive Order: A-014-1012

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 GR	OUP IN	NFORMA	TION					
MODE	TEST CONID : VE			VEHICLE CLASS(ES)			FUEL CATEGORY			FUEL TYPE		
2019 KTYXT05.7M5W				LDT4 DED			EDICATED SINGLE FUEL VEHICLE			GASOLINE		
	USEFU	L LIFE (miles)	VEH	ICLE EMIS	SION	ATEGO	RY	INTERIM / INT	ERME	EDIATE IN-USE STD		
EXH	I/ORVR	EVAP		FTP		SFTP		FTP		SFTP		
15	150000 150000		LEV3	ULEV70	LEV 3 COMP		POSITE	NMOG+NOX AND	PM	PM		
SPE	CIAL F	EATURES & EXI	HAUST EMISSIC	ON CONTR	OL		OBD S	TATUS	ENG	GINE DISPLACEMENT		
1 SFI, 2AIR, 2WR-HO2S, 2TWC(2), 2HO2S						FU	JLL ·	*				
*	*						RTIAL	ALL MODELS	5.7			
			*				AL WITH	*				
		· EV	APORATIVE &	REFUELIN	G (EVA	P/ORVR	) FAMILY	INFORMATION				
EVA	P/OR	VR FAMILY	EVAPORATIVE	STD CATE	GORY	EVAP EMISSION STD VEHICLE CLASS			SPECIAL FEATURES			
F	KTYXR0	300P32	L	EV 2			LDT4			HCT		
R	XTYXR0	190P32	L	EV 2			LDT4			HCT		
				EMISSION	CREDIT	INFOR	MATION					
	EDIT F	OX FLEET AVE. OR EXTENDED RRANTY	EDIT FOR NON-PZEV ZERO-EVAP			NMOG CREDIT FOR DOR			OPTIONAL EXH. STD FOR WORK TRUCKS			
	N N						N			N		
			NMOG	AND FLEE	T AVE	RAGE IN	NFORMAT	TION				
NMOG RAF	NMOG/NIMHC		HCHO/NMHC RATIO	NMOG+NO PC+LDT	0 LVW) LDT (375		+NOX FLEET STE 3751 LVW-8500 R) + MDPV (g/mi)		NMOG+NOX FLEET STI MDV (10,001-14,000 GVWR) (g/mi)			
*	*	1.10	0.013		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.

day of July 2018.

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



50°F @4K

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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

	FUEL TYPE	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 (g/i		(g/i	-	N( (g/		HC (mg		1	M mi)		
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
FTP@50K	*	*	*	*	*	*	*	*	*	*	*		
FTP@UL	GASOLINE- TIER3 E10	0.0438	0.070	0.27	1.7	*	*	*	4	*	0.003		

		NMOG+N	Ox (g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K		*	*			
HWFET @ UL	GASOLINE-TIER3 E10	0.0136	0.070		2-751-1	
20°F @ 50K	COLD CO E10 REGULAR GASOLINE (TIER3)			0.75	12.5	

## SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

			US06		SC03	3	COMPOSITE			
	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	. *	*		*	*	11 69		
		STD	*	*		*	*	Partition - 24		
		CERT	*	*	*	*	*	0.0401	0.81	*
@ UL	GASOLINE- TIER3 E10	STD	*	*	6	*	*	0.090	4.2	*
		BIN						0.080		

## WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			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
KTYXR0190P32	GASOLINE - TIER 2 UNLEADED	0.362	0.90	*	0.357	1.15	*	0.004	0.05
KTYKR0300P32	GASOLINE - TIER 2 UNLEADED	0.433	0.90	*	0.387	1.15	*	0.006	0.05



TOYOTA

TUNDRA 4WD

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KTYXR0300P32

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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) @ 4K			
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
KTYXR0300P32	GASOLINE - TIER 2 0.001 0.20 UNLEADED		*	*	*		*	*	*			
KTYXR0190P32	GASOLINE - TIER 2 UNLEADED	0.033	0.20	*	*	*	*			*		
	EFFECTIVE I	EAK D	IAMET	ER STANDAR	D AND CE	RTIFICA	TION LEV	EL (INCH	IES)			
EVAPORATIVE	FAMILY	LEA	K 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; GWR: 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 MAKE MODEL VEH CLASS ENGINE (L) OBD **ECS** FAMILY 5.7 KTYXR0190P32 1 TOYOTA SEQUOIA 2WD LDT4 SA6 P TOYOTA SEOUOIA 4WD LDT4 5.7 SA6 KTYXR0190P32 1 P TUNDRA 2WD LDT4 5.7 SA6 KTYXR0190P32 1 TOYOTA P 5.7 LDT4 SA6 KTYXR0300P32 1 TOYOTA TUNDRA 2WD P TOYOTA TUNDRA 4WD LDT4 5.7 SA6 KTYXR0190P32 1 P

5.7

SA6

LDT4