## California Environmental Protection Agency

**⊘** Air Resources Board

TOYOTA MOTOR CORPORATION

Executive Order: A-014-0944

New Passenger Cars, Light-Duty Trucks and

Medium-Duty Vehicles

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Pursuant to the authority vested in the 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: 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 GROU	IP IN	FORMAT	ION					
MODE		EST G	/EHICLE CLASS(ES)			FUEL CATEGORY		GORY	FU	EL TYPE			
2017	нт	YXV01	PC				CATED SINGLE FUEL VEHICLE			ASOLINE			
	USEFUL	LIFE	(miles)	VEH	ICLE EMISSIO	ON C	ATEGOR	Υ	IN	TERIM / INT	ERMEDIA	TE IN-USE STD	
EXH	EXH/ORVR EVAP				FTP.	177	SFTP			FTP		SFTP	
150000 150000			CERTI	LEV OPTION FYING TO 3 ULEV OG+NOX	TO LEV 2 SFTP V STANDARD		*		*				
SPE	CIAL FE	ATUR		IAUST EMISSIC	ON CONTROL			OBD ST	TATL	JS	ENGINE	DISPLACEMENT (L)	
1	WU-TWC, TWC, WR-HO2S, HO2S, DFI						FUL	L		*			
*	*						PART	IAL .	ALL MODELS		1.5		
*				*			AL WITH *		*				
		***	EV	APORATIVE &	REFUELING (	EVA	P/ORVR)	FAMILY	INF	ORMATION			
EVA	P / ORV	R FAM	MILY	EVAPORATIVE	STD CATEG	ORY	RY EVAP EMISSION STD VEHICLE CLASS				SPECIAL FEATURES		
E	TYXR01	07R1	2	I	EV 2	EV 2 PC					*		
			1		EMISSION CR	EDIT	INFORM	ATION					
	A	LLOW	ANCE FO	R TEST GROU	P	_	MOG CR			NMOG CRI		OPTIONAL EXH	
BASELINE PZEV AT PZEV TZEV					TZEV	NO	N-PZEV 2	ZERO-E	VAP	DO	R	TRUCKS	
* *					*		N	1		N		N	
				NMO	AND FLEET	AVE	RAGE IN	FORMA	TION				
NMOG RAF			PC+LDT (0-	NMOG+NOX FLEET S PC+LDT (0-3750 LVV (g/mi)		LVW) LDT (3		MOG+NOX FLEET STI LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)		NOX FLEET STD (10001-14000 VWR) (g/mi)			
*	*		1.04	*	0.	086			0	.101		*	

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.

### 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 NMOG+NOx and greenhouse gas Fleet Average (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

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#### 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 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 \_\_\_\_\_\_ day of August 2016.

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

#### **FUEL TYPE**

100./f 1/1-190.		NMOG+NOx (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
TP@50K	*	*	*	*	*	*	*	*	*	*	*
FTP@UL	GASOLINE - TIER 2 UNLEADED	0.038	0.125	0.1	2.1	*	*	*	11	*	0.01
50°F @4K	GASOLINE - CA PHASE 2	0.062	0.250	0.4	2.1	*	*	*	16		

	FUEL TYPE	NMOG+N	lOx (g/mi)	CO (g/mi)		
I/O distant	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	*	*	*		5,455,653,653,753 56,854,452,54	
HWFET @ UL	GASOLINE - TIER 2 UNLEADED	0.025	0.125	Access to the second	A STATE OF S	
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE		MANAGEM CONTRACTOR	0.4	10.0	

## SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC0	3	COMPOSITE			
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMOG+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	
@ 4K	GASOLINE - TIER 2 UNLEADED	CERT	0.03	0.9		0.01	0.1				
		STD	0.14	8.0		0.20	2.7			Mary Con	
		CERT	*	*	*	*	*	0.041	*	*	
@ UL	GASOLINE - TIER 2 UNLEADED	STD	*	*	*	*	*	0.103	*	*	
		BIN					2248,024	0.120		AT HA	

#### WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVAPORATIVE FAMILY			WHOLE						
	FUEL TYPE	3DHS (g/test) @ UL			2DI	HS (g/test) @	RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
HTYXR0107R12	GASOLINE - CA PHASE 2	0.256	0.50	*	*	0.65	*	0.000	0.05

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ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS													
				FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY	ORVR (g/gailon) @ 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			
HTYXR0107R12	GASOLINE - TIER 2 UNLEADED	0.018	0.20	*	*	*	*	*	*	*			

: 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; PZEV: partial ZEV; AT PZEV: advanced technology PZEV; 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; 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

#### 2017 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
TOYOTA	YARIS	PC	1.5	М6	HTYXR0107R12	1	P	*
TOYOTA	YARIS	PC .	1.5	SA6	HTYXR0107R12	1	P	*
TOYOTA	YARIS IA	PC	1.5	М6	HTYXR0107R12	1	P	*
TOYOTA	YARIS IA	PC	1.5	SA6	HTYXR0107R12	1	P	*