California Environmental Protection Agency

⊘ Air Resources Board

TOYOTA MOTOR CORPORATION

Executive Order: A-014-0890

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 GRO	OUP INFOR	RMATION				
MODEL YEAR	TEST GROUP			HICLE CLASS(E	FUEL CA	TEGORY	FUEL TYPE			
2016	GTY	KJ02.5BEL		PC		DEDICATED S		GASOLINE		
l	JSEFUL L	IFE (miles)	11 ,	VEHICLE EMISS	SION CATE	GORY	INTERIM / INT	ERMEDIA	TE IN-USE STD	
EXH	ORVR	EVAP		FTP	S	FTP	FTP		SFTP	
120	0000	15000	:	LEV2 ULEV		2 SFTP NDARD	*		*	
SPE	CIAL FEA		CHAUST EMIS	SSION CONTRO)L	OBD STA	ATUS	ENGINE	DISPLACEMENT (L)	
1		TWC (2), W	R-H02S, HO	2S, SFİ		FULL	ALL MODELS			
*			*			PARTIAL * 2.5				
*			*		PA	TIAL WITH *				
		E	VAPORATIV	E & REFUELING	EVAP/O	RVR) FAMILY I	NFORMATION			
EVA	P / ORVR	FAMILY	EVAPORA	TIVE STD CATE	GORY	EVAP EMISS		SPECIA	L FEATURES	
G	TYXR012	0A42		LEV 2		PC			HCT	
G'	TYXR011	5A12		LEV 2		PC			HCT	
				EMISSION C	REDIT INF	ORMATION				
DASE			OR TEST GR	TZEV					OPTIONAL EXH. STD FOR WORK TRUCKS	
	*		*	*		N N			и	
NMOG AND FLEET AVERAGE INFORMATION										
NMOG	IMOG RAF CH4 RAF FTP NMOG/NMHC RATIO HCHO/NMHC			MHC RATIO	C RATIO NMOG+NOX FLEET STD PC+LDT (0-3750 LVW) (g/mi)		NMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)			
*	* * 1.04 0.018				018	0.093 0.110			0.110	

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 NMOG+NOx and greenhouse gas Fleet Average (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan 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 at El Monte, California on this

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

	NMOG (g/mi)		CO (g/mi)		NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)			
	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
GASOLINE - CA PHASE 2	0.0180	0.040	0.22	1.7	0.021	0.05		8	*	*		
GASOLINE - CA PHASE 2	0.0246	0.055	0.32	2.1	0.026	0.07	*	11	*	0.01		
. *	*	*	*	*	*	*	*	*		SPORE.		
	CA PHASE 2 GASOLINE -	GASOLINE - CA PHASE 2 GASOLINE - CA PHASE 2 CA PHASE 2 0.0246	(g/mi) CERT STD GASOLINE - 0.0180 0.040 GASOLINE - 0.0246 0.055	(g/mi) (g/mi) CERT STD CERT GASOLINE - CA PHASE 2 0.0180 0.040 0.22 GASOLINE - CA PHASE 2 0.0246 0.055 0.32	(g/mi) CERT STD CERT STD GASOLINE - CA PHASE 2 0.0180 0.040 0.22 1.7	(g/mi) (g/mi) (g/mi) (g/mi) CERT STD CERT STD CERT GASOLINE - CA PHASE 2 0.0180 0.040 0.22 1.7 0.021 GASOLINE - CA PHASE 2 0.0246 0.055 0.32 2.1 0.026	(g/mi) (g/mi) (g/mi) CERT STD CERT STD CERT STD GASOLINE - CA PHASE 2 0.0180 0.040 0.22 1.7 0.021 0.05 GASOLINE - CA PHASE 2 0.0246 0.055 0.32 2.1 0.026 0.07	(g/mi) (g/mi) (g/mi) (mg) CERT STD CERT STD CERT GASOLINE - CA PHASE 2 0.0180 0.040 0.22 1.7 0.021 0.05 * GASOLINE - CA PHASE 2 0.0246 0.055 0.32 2.1 0.026 0.07 *	(g/mi) (g/mi) (g/mi) (mg/mi) CERT STD CERT STD CERT STD GASOLINE - CA PHASE 2 0.0180 0.040 0.22 1.7 0.021 0.05 * 8 GASOLINE - CA PHASE 2 0.0246 0.055 0.32 2.1 0.026 0.07 * 11	(g/mi) (g/mi) (g/mi) (mg/mi) (g/mi) CERT STD CERT STD CERT STD CERT STD CERT CERT STD CERT CERT STD CERT STD		

	FUEL TVDE	NOx	(g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	GASOLINE - CA PHASE 2	0.009	0.07	The state of the s	AND SAID STATE	
HWFET @ UL	GASOLINE - CA PHASE 2	0.014	0.09			
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE			1.20	10.0	

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

				US06		SC0	3	CON	POSITE	
	FUEL TYPE		NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)	NMHC+NOx (g/mi)	CO (g/mi)	NMHC+NOx (g/mi)	CO (g/mi)	PM (mg/mi)
0.44	GASOLINE -	CERT	0.013	0.74		0.082	0.03	ANTERNA SERVICE		The Arrest Sine
@ 4K	CA PHASE 2	STD	0.14	8.0		0.20	2.7			
		CERT	*	*	*	*	*	*	*	*
@ UL	*	STD	*	*	*	*	*	*	*	*
		BIN			MARKET			*		

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE	RL (g/mi) @ UL					
EVAPORATIVE FAMILY	FUEL TYPE	3DHS (g/test) @ UL					2DHS (g/test) @ UL		
		CERT	RT STD	FEL	CERT	STD	FEL	CERT	STD
GTYXR0115A12	GASOLINE - TIER 2 UNLEADED	0.158	0.50	*	*	0.65	*	0.005	0.05
GTYXR0120A42	GASOLINE-CA PHASE 2	0.109	0.35	*	*	0.35	*	0.004	0.05

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ORVR / FU	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) @ 4h			
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD		
GTYXR0115A12	GASOLINE - TIER 2 UNLEADED	0.040	0.20	*	*	*	*	*	*	*		
GTYXR0120A42	GASOLINE - TIER 2 UNLEADED	0.004	0.20	GASOLINE - CA PHASE 2	0.01	0.0	*	0.0	*	*		

*: 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; 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 sparkignited 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

2016 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE MODEL		VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE	
TOYOTA	CAMRY	PC	2.5	SA6	GTYXR0115A12	1	F	*	
TOYOTA	CAMRY	PC	2.5	SA6	GTYXR0120A42	1	ਜ	*	