California Environmental Protection Agency

⊘ Air Resources Board

TOYOTA MOTOR CORPORATION

Executive Order: A-014-0946

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	UP IN	FORMATIC	N				
MODE	- I T	EST G	ROUP	VEHIC	CLE CLASS(ES	5)	F	FUEL CATEGORY		FU	JEL TYPE	
2017	HTYXV01.8B6A PC					PC DEDICATED SINGLE FUEL VEHICLE				GASOLINE		
	USEFU	LIFE	(miles)	VE	HICLE EMISSI	ON C	ATEGORY	- 11	TERIM / INTI	ERMEDIA	TE IN-USE STD	
EXH	/ORVR		EVAP		FTP		SFTP		ETP		SFTP	
12	120000 150000 LEV2 ULEV			V2 ULEV		EV 2 SFTP STANDARD		*		*		
SPE	CIAL FI	EATUR		IAUST EMISS	ION CONTROL		O	BD STAT	us	ENGINE	DISPLACEMENT (L)	
1		SFI	, WR-HO2	S, TWC(2),	HO2S		FULL		*			
*	*						PARTIA	L AI	L MODELS	1.8		
*	*						PARTIAL Y		*			
			EV	APORATIVE 8	REFUELING	(EVAI	P/ORVR) F	AMILY IN	ORMATION			
EVA	P / OR	R FAI	MILY	EVAPORATIV	E STD CATEG	ORY		P EMISSION		SPECIA	L FEATURES	
I	HTYXRO	115P1:	2		LEV 2		PC				HCT	
					EMISSION CR	EDIT	INFORMA	TION				
	A	LLOW	ANCE FO	R TEST GRO	JP		IMOG CREI		NMOG CRE		OPTIONAL EXH	
BASI	ELINE P	ZEV	AT	PZEV	TZEV	NO	NON-PZEV ZERO-EVAP DO				TRUCKS	
	* * *						N N				И	
				NMO	G AND FLEET	AVE	RAGE INFO	RMATIO	N			
NMOG RAF	CH4 RAF			-3750	'50 LVW) LDT (375				G+NOX FLEET STD DV (10001-14000 GVWR) (g/mi)			
*	*		1.04	0.018	0.	086		C	.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.

BE IT FURTHER RESOLVED:

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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 seg. [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 day of August 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDA	RDS AND CERTIFICATION LEVELS

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)				NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)		
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
FTP@50K	GASOLINE - CA PHASE 2	0.0197	0.040	0.19	1.7	0.020	0.05	*	8	*	*	
FTP@UL	GASOLINE - CA PHASE 2	0.0215	0.055	0.22	2.1	0.025	0.07	*	11	*	0.01	
50°F @4K	GASOLINE - CA PHASE 2	0.0618	0.080	0.35	1.7	0.016	0.05	*	16			

The Market	FUEL TYPE	NOx	(g/mi)	CO (g/mi)		
	FUEL TYPE	CERT	STD	CERT	STD	
HWFET @ 50K	GASOLINE - CA PHASE 2	0.010	0.07			
HWFET @ UL	GASOLINE - CA PHASE 2	0.015	0.09	A The Control of the State of the		
20°F @ 50K	GASOLINE-COLD CO LOW OCTANE	3 - 3 - 4 - 4 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	CA WATER A	0.83	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 - CA PHASE 2	CERT	0.022	0.12		0.043	0.01				
@ 41.C		STD	0.14	8.0		0.20	2.7		A 1.3		
		CERT	*	*	*	*	*	0.0463	*	*	
	GASOLINE - CA PHASE 2	STD	*	*	*	*	*	0.103	*	*	
		BIN		ANGES.		LEFT HAVE	Y KANGAT	0.100			

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

			WHOLE	VEHICLE	EVAPORA1	TIVE TESTIN	NG			
EVAPORATIVE FAMILY	FUEL TYPE	3DHS (g/test) @ UL			2DHS (g/test) @ UL			RL (g/mi) @ UL		
		CERT	STD	FEL	CERT	STD	FEL	CERT	STD	
HTYXR0115P12	GASOLINE - TIER 2 UNLEADED	0.263	0.50	*	0.246	0.65	*	0.004	0.05	

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ORVR / FUI	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) @ 4K						
	FUEL TYPE	CERT	STD		CERT	STD	CERT	STD	CERT	STD					
HTYXR0115P12	GASOLINE - TIER 2 UNLEADED	0.014	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; ŽEV: 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	COROLLA	PC	1.8	CV1	HTYXR0115P12	1	P	*
TOYOTA	COROLLA	PC	1.8	M6	HTYXR0115P12	1	P	*
TOYOTA	COROLLA	PC	1.8	scv7	HTYXR0115P12	1	P	*