California Environmental Protection Agency

@ Air Resources Board

TOYOTA MOTOR CORPORATION

Executive Order: A-014-0927-1
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 IN	FORMATI	ON				
MODE		EST G	ROUP	VEHIC	CLE CLASS(E	ES)	FUEL CATEGORY			FUEL TYPE		
2017	нт	YXV02	.5P34		PC		н	YBRID EL VEHIC		G	GASOLINE	
ı	JSEFUL	LIFE	(miles)	VE	HICLE EMISS	SION CA	ATEGORY	/	NTERIM / INTE	RMEDIA	TE IN-USE STD	
EXH	/ORVR		EVAP		FTP		SFTP	TX	FTP		SFTP	
15	0000		150000	LEV3	SULEV30	LEV	3 COMPOS	SITE	PM	NMO	OG+NOX AND PM	
SPE	CIAL FE	ATUR		HAUST EMISS	ION CONTRO	DL	*	OBD STAT	rus	ENGINE	DISPLACEMENT (L)	
1	SFI,	EGR,	EGRC,	WR-HO2S, TW	VC(2), HO2S		FUL		*			
*				*		PARTIAL ALL MODELS					2.5	
*				*			PARTIAL FINE		*	*		
			EV	APORATIVE 8	REFUELING	EVAF	P/ORVR) F	AMILY IN	FORMATION			
EVA	P / ORV	R FAN	MILY	EVAPORATIV	E STD CATE	GORY		P EMISSIC		SPECIA	L FEATURES	
Н	TYXR01	30A72	2		LEV 2			PC		HCT		
					EMISSION C	REDIT	INFORMA	ATION				
	A	LLOW	ANCE FO	R TEST GRO	UP			EDIT FOR ERO-EVAI	NMOG CRE		OPTIONAL EXH. STD FOR WORK	
BASE	LINE P	ZEV	AT	PZEV	TZEV	NOI	N-PZEV Z	ERU-EVAI	DOF	DOR		
	*		SOME	MODELS	*		N		% N	N		
				NMO	G AND FLEE	TAVER	RAGE INF	ORMATIO	N			
NMOG RAF	CH4 RAF	MMOG/NMHC HCHO/NMHC PC+LDT			-3750 LVW) LD		IMOG+NOX FLEET STD LDT (3751 LVW-8500 GVWR) + MDPV (g/mi)		NMOG+NOX FLEET STD MDV (10001-14000 GVWR) (g/mi)			
*	*		1.10	0.055		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.

BE IT FURTHER RESOLVED:

For the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of

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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).

BE IT FURTHER RESOLVED:

Evaporative family HTYXR0130A72 is certified pursuant to 13 CCR Section 1976(b)(1)(G)3 and deemed to comply with the requirements of 13 CCR Section 1976(b)(1)(G)1 ["LEV III evaporative requirements"]

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

This Executive Order hereby supersedes Executive Order A-014-0927 dated May 13, 2016.

The Bureau of Automotive Repair will be notified by copy of this Executive Order,

Executed at El Monte, California on this 25 day of August 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

FTP@UL

20°F @ 50K

LEV3 E10

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0.41

10.0

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION	N LEVELS
EXHAUST EMISSION STANDARDS AND CERTIFICATION I EVELS (ETP. HWEET 50°E	20°E)

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+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
FTP@50K	*	*	*	*	*	*	*	*	*	*	*
FTDOU	GASOLINE-	0.0145	0 020	0.05	1 0					4	0 000

0.030

COLD CO E10 REGULAR GASOLINE (TIER 3)

0.0145

0.05

50°F @4K	*	*	*	*	*		-	*	•		
AL MENTHER	:		FUEL TYP	E		NMOG+NOx (g/mi)			CO (g/mi)		
Franklin - William			FUEL ITP	_		CE	RT	STD	CERT	STD	
HWFET @ 50K			*					*		April Section	
HWFET @ UL		GASC	LINE-LEV	3 E10		0.6	055	0.030		And the second	

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		•		*	*				
		STD	*	*		*	*				
		CERT		*	*	*	*	0.0107	0.05	*	
@ UL	GASOLINE- LEV3 E10	STD	*	*	10	*	*	0.103	4.2	*	
		BIN				A THE SEC		0.030	de la di	Ativis	

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
HTYXR0130A72	GASOLINE - CA PHASE 2	0.115	0.35	*	*	0.35	*	0.002	0.05

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		
HTYXR0130A72	GASOLINE - TIER 2 UNLEADED	0.043	0.20	GASOLINE - CA PHASE 2	0.01	0.0	*	0.0	*	*		

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: not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2 .DT<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; 🗗 85. "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
LEXUS	ES 300H	PC	2.5	scv6	HTYXR0130A72	1	P	*
TOYOTA	CAMRY HYBRID	PC	2.5	CV1	HTYXR0130A72	1	P	AT PZEV (TYPE E)
TOYOTA	CAMRY HYBRID XLE/SE	PC	2.5	CV1	HTYXR0130A72	1	P	AT PZEV (TYPE E)