California Environmental Protection Agency

OB Air Resources Board

TOYOTA MOTOR CORPORATION

Executive Order: A-014-0876

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 GR	OUP IN	FORM	MATION	* -			
MODEL YEAR	TEST G	ROUP	OUP VEHICLE CLASS(ES)				FUEL CATEGORY			FUEL TYPE		
2015	FTYXVO:	L. 8ME	A		PC		I		SINGLE FUEL	G	ASOLINE	
US	FUL LIFE	(miles	s) · [VEHI	CLE EMIS	SION C	ATEG	ORY	INTERIM / INT	ERMEDIA	TE IN-USE STD	
EXH/O	RVR	EVA	AP	F	TP		SFT	P	FTP		SFTP	
1500	00	1500	000	LEV3	ULEV70	LEV	3 CO	MPOSITE	NMOG+NOX		NMOG+NOX	
SPECIA	L FEATUR		EXHAUST	EMISSIO	N CONTRO	OL		OBD ST	TATUS	ENGINE	DISPLACEMENT (L)	
1	TWO	(2),	WR-HO2S,	HO2S,	SFI			FULL	ALL MODELS			
*	*						P	ARTIAL	*		1.8	
*			*					TIAL WITH	*	-		
			EVAPORA	TIVE & F	REFUELING	G (EVA	P/OR	/R) FAMILY	INFORMATION			
EVAP /	ORVR FA	VILY	EVAPO	RATIVE	STD CATE	GORY		EVAP EMIS		SPECIA	L FEATURES	
FTY	XR0115P1	2		LE	V 2			P	С	HCT		
				Е	MISSION	CREDIT	INFO	RMATION				
	ALLOV	ANCE	FOR TEST	GROUF	•	1		CREDIT FO	NMOG CR		OPTIONAL EXH.	
BASELI	NE PZEV		AT PZEV		TZEV			EVAP	DC	OR	TRUCKS	
	t .		*		. *			N	N	ı	. N	
				NMOG	AND FLEE	T AVE	RAGE	INFORMAT	rion			
NMOG RA	AF CH4 RA	AF I	FTP NMOGA		нсно/м	MHC R	ATIO	PC+LDT	OX FLEET STD (0-3750 LVW) (g/mi)	LDT (3	NOX FLEET STD 751 LVW-8500 + MDPV (g/mi)	
*	*		1.10		0	.029			0.100		0.119	

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 or NMOG+NOX, as applicable, 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).

BE IT FURTHER RESOLVED:

The test group listed in this Executive Order is certified conditionally on the manufacturer providing data to demonstrate compliance with California's greenhouse gas fleet average emission standard (CA GHG Standard) specified in Title 13, California Code of Regulations, (13 CCR) Section 1961.1 and the incorporated California 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, amended December 6, 2012 (CA Test Procedures). The manufacturer has elected, under 13 CCR Section 1961.1(a)(1)(A)(ii) and under Section E.2.5.1(ii) of the CA Test Procedures, to demonstrate compliance with the CA GHG Standard by demonstrating compliance with the National greenhouse gas program (National GHG Program). Therefore, the test group listed in this Executive Order is certified conditionally further on the manufacturer complying with the requirements specified in said provisions in 13 CCR, and Sections E.2.5.1(ii) and H.4.5(b) and H.4.5(c) of the CA Test Procedures (among other things, concerning data and information submission, timing, and format as specified by the Executive Officer). Failure to comply with the certification requirements to demonstrate compliance with CA GHG Standard by demonstrating compliance with the National GHG Program under said provisions in 13 CCR and CA Test Procedures may be cause for the Executive Officer to revoke the Executive Order. Vehicles in the revoked Executive Order shall be deemed uncertified and subject to penalties authorized under California law. Notwithstanding the requirement herein, a manufacturer that becomes, after MY2009, a large-volume manufacturer, as defined in 13 CCR Section 1900, is not required to comply with the CA GHG Standard until the beginning of the fourth model-year from becoming a large-volume manufacturer. Additionally, notwithstanding the requirement herein, a small-volume manufacturer, independent low-volume manufacturer, or intermediate volumemanufacturer, as defined in 13 CCR Section 1900, is not required to comply with CA GHG Standard during modelyears (MY) 2012 through 2015.

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 July 2014.

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)	
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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)					NOx (g/mi)		HCHO (mg/mi)		PM (g/mi)	
		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
FTP@50K	*	*	*	*	*	*	*	*	*	. *	*	
FTP@UL	GASOLINE- LEV3 E10	0.0352	0.070	0.14	1.7	*	*	*	4	*	0.01	
50°F @4K	*	*	*	*	*	*	*	*	*		**	

1 -	FUEL TYPE	NMOG+I	NOx (g/mi)	CO (g/mi)			
	FUEL TYPE	CERT	STD	CERT	STD		
HWFET @ 50K	*	*	*				
HWFET @ UL	GASOLINE- LEV3 E10	0.0117	0.070				
20°F @ 50K	GASOLINE- COLD CO LOW OCTANE			1.00	10.0		

SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS

1			US06	/ UC (LA92)	SC03		COMPOS	ITE
-	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)
0.41/	_	CERT	*	*		*	*		
@ 4K	. *	STD	*	*		*	*		1000
		CERT	*	*	*	*	*	0.0288	0.13
@ UL	GASOLINE- LEV3 E10	STD	. *	*	*	*	*	0.140	4.2
	LLV3 E10	BIN				0		0.080	

WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

EVADODATIVE	-		WHOLE	VEHICLE	EVAPORAT	TIVE TESTIN	IG	DI /a/m	.:\ @ !!!
EVAPORATIVE	FUEL TYPE	PE 3DHS (g/test) @ UL		@ UL	2DHS (g/test) @ UL			— RL (g/mi) @ UL	
1730121		CERT	STD	FEL	CERT	STD	FEL	CERT	STD
FTYXR0115P12	GASOLINE - TIER 2 UNLEADED	0.263	0.50	*	0.246	0.65	*	0.004	0.05

ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

	ORVR (g/gallon) @ UL			FUEL ONLY EVAP & CANISTER BLEED									
EVAPORATIVE FAMILY				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			
FTYXR0115P12	GASOLINE - TIER 2 UNLEADED	0.014	0.20	*	*	*	*	*	*	*			

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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; 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-CARB: 85% ethanol+15% CA Phase2 gasoline; E85-EPA: 85% ethanol+15% Tier2 unleaded gasoline; E10-CARB: 10% ethanol+90% CA Phase2 gasoline; E10-EPA: 10% ethanol+90% Tier2 unleaded gasoline; A: automatic transmission; M: manual transmission; SA: semi-automatic transmission; L: lock-up automatic transmission; CV: continuously variable transmission; AM: automated manual transmission; OT: other transmission

2015 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE
TOYOTA	COROLLA LE ECO	PC	1.798	CV1	FTYXR0115P12	1	F	*