#### TOYOTA MOTOR CORPORATION

**EXECUTIVE ORDER A-014-0537** 

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 39516 and Executive Order G-02-003;

#### IT IS ORDERED AND RESOLVED:

That 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.

MODEL YEAR	TEST GROUP	TEST GROUP VEHICLE TYPE		USEFU (mil		IN- COMP (*=N/A or A/E=ex	MEDIATE USE LIANCE full in-use; h. / evap. late in-use)	FUEL TYPE
	ATTO/TOO ADEM	LDT: <6000# GVW, 3751-5750#	"LEV II" Ultra Low Emission Vehicle (LEV II	ORVR	EVAP	EXH	EVAP	Gasoline
2006	6TYXT02.4PEM	LVW	ULEV)	120K 150K		A	E	
No.	ECS &	EVAPORATIVE			DISPLACEMENT (L)			
1	WU-TWC,TW	6TYXR0	130A22					
•			*				.4	
•		•	*					
•		*		*				

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:**

That the exhaust and the evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50<sup>0</sup> 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 Fleet Average" (PC or LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

## **BE IT FURTHER RESOLVED:**

That 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 Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model 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 27th day of October 2005.

Allen Laons, Chief

Mobile Source Operations Division

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# **ATTACHMENT**

# **EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS**

(For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

NMOG AVERAG		NMOG (	2) RAF=* !AF = *	NMOG or	CH4=methane; NMOG=non-CH4 organic gas; NMHC=non-CH4 hydrocarbon; CO=c HCH0=formaldehyde; PM=particulate matter; RAF=reactivity adjustment factor; 2/3							g/testl=2/3 day diumal+					
CERT	STD	NMOG	NMHC	NMHC	hot-soak; RL [g/mi]=running loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram ml=mile; K=1000 miles; F=degrees Fahrenheit; SFTP=supplemental federal test procedure												
0.046	0.046 0.062 [g/mi] [g/mi]		[g/mi]	CO [g/mi]		NOx	NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]				
		[A,ıııı]	[A,ıııı]		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD			
45143	@ 50K	0.020	*	0.040	0.2	1.7	0.02	0.05	*	8.		•	0.03	0.07			
e i heridi	@ UL	0.027	* .	0.055	0.3	2.1	0.03	0.07	*	11.	*	*	0.04	0.09			
A 11 0	50°F & 4K	0.040	*	0.080	0.2	1.7	0.02	0.05	*	16.	*	*	•	*			

	O [g/mi] 0°F & 50K			Ox [g/mi] oosite)		g/mi] posite)		+NOx [US06]		g/mi] i06]		HNOx [SC03]	00 j [80	
L	U F & SUK		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	1.7	SFTP @ 4000 miles	•	•	•	•	0.02	0.25	2.5	10.5	0.06	0.27	0.01	3.5
STD	12.5	SFTP @ * miles	•	•	*		•	*	*	•		*	*	

						On-Board Refueling V Recovery (grams/gallon		
CERT	STD	CERT	STD	CERT	STD	CERT	STD	
0.20	0.65	0.23	0.85	0.004	0.05	0.02	0.20	
•	*		•	*	*	•	*	
•	•	•	*	*	*	•		
•	*	*	*	*	*			
	(grams/te		(grams/test) @ UL (grams/te	(grams/test) @ UL (grams/test) @ UL  CERT STD CERT STD	(grams/test) @ UL (grams/test) @ UL (grams/m	(grams/test) @ UL (grams/test) @ UL (grams/mile) @ UL  CERT STD CERT STD CERT STD	(grams/test) @ UL (grams/test) @ UL (grams/mile) @ UL Recovery (gram CERT STD CERT STD CERT STD CERT	

<sup>\* =</sup> not applicable; UL=useful life; PC=passenger car; LDT=light-duty truck; MDV=medium-duty vehicle; ECS= Emission Control System; STD= Standard; CERT= Certification; LVW=loaded vehicle weight; ALVW=adjusted LVW; LEV=low emission vehicle; TLEV=transitional LEV; ULEV=ultra LEV; SULEV=super ULEV; TWC=3-way catalyst; ADSTWC=adsorbing TWC; WU=warm-up catalyst; OC=oxidizing catalyst; O2S=oxygen sensor; HO2S=heated O2S; AFS/HAFS=air- fuel ratio sensor / heated AFS; EGR=exhaust gas recirculation; ABR=secondary air injection; PAIR=pulsed AIR; MFI= multiport fuel injection; SFI=sequential MFI; TBI=throttle body injection; DGI-direct gasoline fuel injection; TC/SC= turbo/super charger, CAC=charge air cooler; OBD (F)(P)=full/partial on-board diagnostic; DOR=direct ozone reducing; prefix 2=parallel; (2) suffix=series; CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85="85%" Ethanol Fuel;

### 2006 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	INTERMEDIATE IN-USE COMPLIANCE (*=N/A or full in-use; A/E=exh. / evap. Intermediate in-use)		PHASE-IN STD.	OBD II
					EXH	EVAP		
TOYOTA	RAV4 4WD	6TYXR0130A22	1	2.4	Α	E	SFTP	Full