File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-377
Relating to Certification of New Motor Vehicles

TOYOTA MOTOR CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 2000 model-year Toyota Motor Corporation exhaust emission control systems are certified as described below for light-duty trucks:

Emission Standard Category: Low-Emission Vehicle (LEV)

Fuel Type: Gasoline

Engine Family: YTYXT03.4FFR Displacement: 3.4 Liters (206 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Three Way Catalytic Converters (two)
Air Fuel Ratio Sensor
Heated Oxygen Sensor
Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The non-methane organic gases (NMOG), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) LEV certification exhaust emission standards for this engine family in grams per mile are:

Loaded Vehicle Weight (lbs.)	Miles	NMOG	CO	NOx	HCHO	CO (20°F)
3751-5750	50,000	0.100	4.4	0.4	0.018	12.5
	100,000	0.130	5.5	0.5	0.023	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.94

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.94 RAF for 2000 model-year LEVs. The LEV certification exhaust emission values for this engine family in grams per mile are:

Loaded Vehicle Weight (lbs.)	Miles	NMOG	CO	NOx	HCHO	CO (20°F)
3751-5750	50,000	0.060	0.8	0.2	0.001	5.5
	100,000	0.066	0.8	0.3	0.002	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty rucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the manufacturer is certifying the listed vehicle models with a partially complying on-board diagnostic system for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(6.2) ("Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines").

BE IT FURTHER RESOLVED: That the vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

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

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 17th day of December 1998

R. B. Summerfield, Chief
Mobile Source Operations Division

17.11.00

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2000 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Eng Fam: YTYXT03.4FFR Evap Fam: YTYXE0145AE0

All Eng Codes in Eng Fam: CA x 49S __ 50S __ AB965 __ , ORVR: YES __ NO x

Exh Std: CA Tier-1 __ TLEV __ LEV x ULEV __ SULEV __ , US EPA Tier-1 __

Veh Class(es): PC __ LDT1 __ LDT2 x MDV1 __ MDV2 __ MDV3 __ MDV4 __ MDV5 __

Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)

Fuel Type(s): Dedicated x Flex-Fuel __ Dual-Fuel __ Bi-Fuel __ Gasoline x Diesel __
CNG __ LNG __ LPG __ M85 __ Other (specify) _____

Exh Emiss Test Fuel(s): Indo __ CBG x CNG __ LPG __ M85 __ Other (specify) _____
Diesel: 13 CCR 2282 __ 40 CFR 86.113-90 __ 40 CFR 86.113-94 __

Evaporative Emission Test Procedure: California __ Federal x

Service Accum: Std AMA __ Mod AMA __ Mfr ADP x Other (specify) _____

NMOG Test Procedure: N/A __ Std x Equiv __ R/L Test Proc: SHED x Pt Source __

Engine Configuration: V-6 Displacement: 3.4 Liters 206 Cubic Inches

Valves per Cylinder: 4 Rated HP : 190@4800 RPM

Engine: Front x Mid __ Rear __ Drive: FWD __ RWD x*2 4WD-FT __ 4WD-PT x*3

Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,A/F S(*1), TWC(2), HO2S
(use abbreviations per SAE J1930 JUN93)

Note *1 : A/F S means Air-fuel ratio sensor.
Note *2 : for TOYOTA TUNDRA 2WD.
Note *3 : for TOYOTA TUNDRA 4WD.

Engine Code (also list CA/49S/ 50ST	Vehicle Models (if coded see attachment)	Trans. (M5, A4, etc.)	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR system Part No.	Catalytic Converter Part No.
1	VCK40L-ARMSKA VCK40L-TRMSKA	M5	4750 4500	15.6/15.9/16.0	89661-0C070	N/A	Q11
2	VCK40L-ARMSKA VCK40L-TRMSKA		4750 4500	17.0/17.3/17.4			U93
3	VCK40L-ARSSKA VCK40L-TRSSKA	L4	4750 4500	15.6/15.9/16.0	89661-0C080		
4	VCK4-0L-ARSSKA VCK40L-TRSSKA		4750 4500	17.0/17.3/17.4			
5	VCK30L-ARMSKA VCK30L-TRMDKA	M5	4500 4250	14.3/15.1	89661-0C050		
6	VCK30L-ARMSKA VCK30L-TRMDKA		4500 4250	15.7/16.5			
7	VCK30L-ARSSKA VCK30L-TRSDKA	L4	4500 4250	14.3/15.1	89661-0C060		
8	VCK30L-ARSLKA VCK30L-ARSSKA VCK30L-TRSDKA		4500 4250	15.7/16.5			

Comments : Please refer to manufacturer's HP list for correct dyno test HP setting based on model and equipment.

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2000 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacture TOYOTA Exh. Eng. Fam YTYXT03.4FFR Evap. Fam YTYXE0145AE0

VEHICLE MODELS:

TOYOTA TUNDRA 2WD	TOYOTA TUNDRA 4WD
VCK30L-ARMSKA	VCK40L-ARMSKA
VCK30L-ARSLKA	VCK40L-ARSLKA
VCK30L-ARSSKA	VCK40L-ARSSKA
VCK30L-TRMDKA	VCK40L-TRMSKA
VCK30L-TRSDKA	VCK40L-TRSSKA