File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-355
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 1999 model-year Toyota Motor Corporation exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Ultra-Low Emission Vehicle (ULEV)

Fuel Type: Compressed Natural Gas (CNG)

Engine Family: XTYXV02.2PPA Displacement: 2.2 Liters (132 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Warm Up Three Way Catalytic Converter
Three Way Catalytic Converter
Air Fuel Ratio Sensor
Heated Oxygen Sensor
Exhaust Gas Recirculation
Sequential Multiport Fuel Injection

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

The ULEV certification exhaust emission standards for this engine family in grams per mile are:

Miles	Non-Methane Organic Gases	Carbon Monoxide	Oxides of Nitrogen	Formaldehyde
50,000	0.040	1.7	0.2	0.008
100,000	0.055	2.1	0.3	0.011

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a reactivity adjustment factor (RAF) for CNG-fueld passenger car ULEVs, and the addition of the product of the methane exhaust emission value and a RAF for methane emission of CNG-fueled passenger car ULEVs.

Reactivity Adjustment Factor for NMOG Mass Emission: 0.43

Reactivity Adjustment Factor for Methane Mass Emission: 0.0047

The ULEV certification exhaust emission values for this engine family in grams per mile are:

Miles	Non-Methane Organic Gases	Carbon Monoxide	Oxides of Nitrogen	Formaldehyde
50,000	0.002	0.3	0.005	0.0002
100,000	0.002	0.4	0.006	0.0002

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 Trucks, 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 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 listed vehicle models shall be clearly labeled as "low-emission motor vehicle" pursuant to the requirements of Health and Safety Code Section 43802(a).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

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 18th day of March 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

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1999MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Eng Fam: XTYXV02.2PPA Evap Fam: XTYXR00000W1
All Eng Codes in Eng Fam: CA __ 49S __ 50S x AB965 __ , ORVR: YES __ NO x
Exh Std: CA Tier-1 __ TLEV __ LEV __ ULEV x SULEV __ , US EPA CFV N/LEV
Veh Class(es): PC x LDT1 __ LDT2 __ 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 __ Diesel __
CNG x LNG __ LPG __ M85 __ Other (specify) _____
Exh Emiss Test Fuel(s): Indo __ CBG __ CNG x LPG __ M85 __ Other (specify) _____
Diesel: 13 CCR 2282 __ 40 CFR 86.113-90 __ 40 CFR 86.113-94 __
Evaporative Emission Test Procedure: California N/A Federal N/A
Service Accum: Std AMA __ Mod AMA __ Mfr ADP __ Other (specify) Assigned DF
NMOG Test Procedure: N/A __ Std x Equiv __ R/L Test Proc: SHED N/A Pt Source N/A
Engine Configuration: I-4 Displacement: 2.2 Liters 132 Cubic Inches
Valves per Cylinder: 4 Rated HP1: 118@5200 RPM
Engine: Front x Mid __ Rear __ Drive: FWD x RWD __ 4WD-FT __ 4WD-PT __
Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI, EGR, A/F S(*1), WU-TWC, TWC, HO2S
(use abbreviations per SAE J1930 JUN93)

Note *1 : A/F S means Air fuel ratio sensor

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	SXV23L-AEPNCA	L4	3625	6.7	89661-3T520	25620-74330	U19 S28

VEHICLE MODELS:

CAMRY CNG

SXV23L-AEPNCA