State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-16-177
Relating to Certification of New Motor Vehicles

MAZDA 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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1994 model-year Mazda Motor Corporation exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: RTK2.0VJG2EA Displacement: 2.0 Liters (122 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Warm-Up Three Way Catalytic Converter
Three Way Catalytic Converter
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 TLEV certification exhaust emission standards for this engine family in grams per mile are:

Miles	Non-Methane Organic Gas	Carbon Monoxide	Nitrogen Oxides	Formaldehyde
50,000	0.125	3.4	0.4	0.015
100,000	0.156	4.2	0.6	0.018

BE IT FURTHER RESOLVED: That on January 14, 1993, the Air Resources Board approved the adoption of a reactivity adjustment factor (RAF) of 0.98 for 1993 through 1997 model-year TLEVs operated on gasoline meeting the specifications of section 9.a.1.(ii) of the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles." A 0.98 RAF shall be conditionally applied to the listed engine family for all purposes related to the engine family, based on the assumption that the adoption of the 0.98 RAF will become effective by December 31, 1993. If the adoption of the 0.98 RAF does not become effective by December 31, 1993, the RAF of the listed vehicle models shall be deemed to be 1.000 for all purposes relating to this engine family.

Reactivity Adjustment Factor for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gas (NMOG) reflect application of a 0.98 RAF for 1994 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

Miles	Non-Methane Organic Gas	Carbon Monoxide	Nitrogen Oxides	Formaldehyde
50,000	0.067	0.8	0.1	0.000 (0.00048)
100,000	0.072	1.0	0.1	0.001

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 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 on January 14, 1993, the Air Resources Board approved the repeal of the currently-effective requirement that each manufacturer certify a minimum of 80 percent of its projected sales of 1994 model-year California-certified passenger cars and light-duty trucks to the phase-in standards for NMHC, or the more stringent standards in section 1960.1(g)(2) of Title 13, California Code of Regulations. If the repeal of such requirement does not become effective by December 31, 1993, the manufacturer shall submit a plan for compliance with the requirement; passenger cars and light-duty trucks not meeting such phase-in or more stringent standards shall be certified only to the extent allowed under the requirement.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles".

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 2290).

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 Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model-Year Passenger Cars, Light-duty Trucks, and Medium-Duty Vehicles with Three-Way Catalyst Systems and Feedback Control" (Title 13, California Code of Regulations, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed vehicle models have been exempted from compliance with the "Malfunction and Diagnostic System Requirements-1994 and Subsequent Model-Year Passenger Cars, Light-duty Trucks, and Medium-Duty Vehicles and Engines" pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(2.0) 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.).

BE IT FURTHER RESOLVED: That the TLEV hydrocarbon exhaust emission standard to which the listed vehicles are certified is at least twice as stringent as otherwise applicable to gasoline vehicles of the same year and class, and the listed vehicles therefore meet the definition of "low-emission motor vehicle" set forth in Health and Safety Code Sections 39037.05 and 43800.

BE IT FURTHER RESOLVED: That the listed vehicle models shall be clearly labeled as "low-emission motor vehicles" as defined in Health and Safety Code Sections 39037.05 and 43800, and such labeling shall meet the requirements of Health and Safety Code Section 43802(a) at the time of sale.

BE IT FURTHER RESOLVED: That the listed vehicle models are certified as TLEVs at the request of Mazda Motor Corporation based on the assumption that the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" will be amended to allow the certification of 1994 model TLEVs on a phase 2 certification gasoline having specifications substantially similar to the specifications of the gasoline used to certify the listed vehicle models. The Air Resources Board approved such amendments at a hearing conducted August 14, 1992. The certification of the listed vehicle models as TLEVs is **CONDITIONAL** on such amendments becoming effective by August 1, 1993. If such amendments do not become effective by August 1, 1993, the listed vehicle models shall be

deemed certified to the phase-in standards for passenger cars as set forth in section 1960.1 (f)(1) of Title 13, California Code of Regulations (For 50,000 miles: 0.25 g/mi non-methane hydrocarbons or NMHC, 3.4 g/mi carbon monoxide or CO, and 0.4 g/mi oxides of nitrogen. For 100,000 miles: 0.31 g/mi NMHC and 4.2 g/mi CO.)

BE IT FURTHER RESOLVED: That the listed vehicle models are certified as TLEVs at the request of Mazda Motor Corporation based on the assumption that the 50-degree Fahrenheit exhaust emission standards in the "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles" will be amended with the result that the data submitted by Mazda Motor Corporation for the listed vehicle models would be sufficient to satisfy the 50-degree Fahrenheit exhaust emission standards for TLEVs. The Air Resources Board approved such amendments at a hearing conducted on January 14, 1993. The certification of the listed vehicle models as TLEVs is **CONDITIONAL** on such amendments becoming effective by December 31, 1993. If such amendments do not become effective by December 31, 1993, the listed vehicle models shall be deemed certified to the phase-in standards for passenger cars as set forth in section 1960.1 (f)(1) of Title 13, California Code of Regulations (For 50,000 miles: 0.25 g/mi non-methane hydrocarbons or NMHC, 3.4 g/mi carbon monoxide or CO, and 0.4 g/mi oxides of nitrogen. For 100,000 miles: 0.31 g/mi NMHC and 4.2 g/mi CO.)

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 16th day of June, 1993.

Norman Kaye for
R. B. Summerfield
Assistant Division Chief
Mobile Source Division

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Manufacturer Mazda Motor Corporation Engine Family RTK2.0VJG2EA

Passenger Car X (PC) Light-Duty Truck ___ (T1/T2) Medium-Duty Vehicle ___ (M1/M2/M3/M4/M5)

Stds Type: TLEV (Tier 0/1, AB965, TLEV, LEV, ULEV) Vehicle Type (FFV, HEV(Type A/B/C)): N/A

Fuel Type Unleaded Evaporative Family RTK1065BYP02

Engine Config. I-4 Liter(CID) 2.0 (121.5)

Engine: Front X Mid. ___ Rear ___ Drive: FWD X RWD ___ 4WD-FT ___ 4WD-PT ___

Exhaust ECS & Special Features (incl. CARB, MFI, etc.) WU-TWC HO2S, SFI, TWC, EGR

(use abbreviations per SAE 1930 MAY91)

Engine Code (Cert. Std.)	Vehicle Models (if coded see attachment)	Trans. Type A-automatic M-manual	ETW	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalyst Part. No.
CFSDT-M No A/C	Mazda 626	M-5	3000	6.2 [1]	Distributor: FS01 ECU:FS61	EGR Control Valve: FS56	Monolith converter: FS62 (Pre.) FS01 (Main)
				5.4 [2]			
CFSDT-MC A/C	Mazda 626/MX-6			6.8 [1]			
				5.9 [2]			

1. 195/65R14 88S BRIDGESTONE Tire
2. 195/65R14 88S DUNLOP Tire

Certification Standard:

	NMOG	CO	NOx	HCHO	EVAP.
50,000 miles	0.125 g/mile	3.4 g/mile	0.4 g/mile	15 mg/mile	2.0 g/test
100,000 miles	0.156 g/mile	4.2 g/mile	0.6 g/mile	18 mg/mile	---

	at 2500 rpm N/L	at idle
Idle HC	220	100
Idle CO	1.2	1.0

Revisions:
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