

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-623  
Relating to Certification of New Motor Vehicles

GENERAL MOTORS 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 1993 model-year General Motors Corporation exhaust emission control systems are certified as described below for passenger cars:

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

Fuel Type: Fuel Flexible (M85 Methanol, Gasoline)

Engine Family: P1G3.1N8MP24 Displacement: 3.1 Liters (191 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Exhaust Gas Recirculation
- Three Way Catalytic Converter
- Oxygen Sensor
- 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: (The standards in parentheses are for gasoline.)

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>
50,000	0.125 (0.25)	3.4 (3.4)	0.4 (0.4)	0.015 (0.015)
100,000	0.156 (0.31)	4.2 (4.2)	0.6 (0.6)	0.018 (0.018)

Reactivity Adjustment Factor for NMOG Mass Emission (Using Phase 2 Certification Gasoline): 0.98

Reactivity Adjustment Factor for NMOG Mass Emission (Using M85 Methanol Fuel): 0.41

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of the above-mentioned RAFs for 1994 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are: (The values in parentheses are for gasoline.)

<u>Miles</u>	<u>Non-Methane Organic Gases</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>
50,000	0.080 (0.12)	0.5 (1.5)	0.2 (0.3)	0.015 (0.004)
100,000	0.101 (0.14)	0.5 (1.5)	0.3 (0.3)	0.015 (0.004)

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 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 General Motors 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 General Motors 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 12<sup>th</sup> day of August, 1993.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORPORATION

ENGINE FAMILY: P1G3.1N8MP24

PASSENGER CARS X LIGHT DUTY TRUCKS      MEDIUM DUTY VEHICLES     

FUEL TYPE: GASOLINE/METHANOL STANDARDS TYPE: TLEV VEHICLE TYPE: FFV

ENGINE CONFIG: V6 LITER (CID): 3.1 (191) EVAP FAMILY: PF0-1Z

ENGINE: FRONT X MID      REAR      DRIVE: FWD X RWD      4WD-FT      4WD-PT     

EMISSION CONTROL SYSTEM & SPECIAL FEATURES: MFI, EGR, TWC, KS, O2S

DPA: SECTION 08.13.02.00

<u>ENG CODE</u>	<u>VEH MODELS (SEE PAGE 1)</u>	<u>TRANS TYPE:</u> A-AUTO M-MAN	<u>EQUIV TEST WEIGHT</u>	<u>IGN SYSTEM (ECM/PCM) PART NO.</u>	<u>EGR SYSTEM PART NO.</u>	<u>CATALYST PART NO.</u>
1	1WN69 1WL69	A	3625	16184441	17091147	25145152

ISSUED: 07-16-93  
(ML-PP485)

REVISED: ML-PR165

17-P1G3.1N8MP24-2  
(1993)