

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-705-A
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 Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1996 model-year General Motors Corporation exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: TGM2.2V8GKEK Displacement: 2.2 Liters (134 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Exhaust Gas Recirculation
- Three Way Catalytic Converter
- Oxygen Sensor
- Heated Oxygen Sensor
- Sequential Multiport Fuel Injection

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

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

<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.25	3.4	0.4	10.0
100,000	0.31	4.2	0.6	n/a

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

<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.12	1.7	0.3	5.5
100,000	0.14	2.4	0.4	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 non-methane organic gas (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 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 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 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 11th day of September 1995.



R. B. Summerfield
Assistant Division Chief
Mobile Source Division

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
GASOLINE-FUELED PASSENGER CARS

VEHICLE MODELS: 1 J C 3 7 (EXAMPLE)

Digit 1 - Selling Division

- 1 - Chevrolet
- 2 - Pontiac
- 3 - Oldsmobile
- 4 - Buick
- 6 - Cadillac
- 8 - Saturn

Digit 2 - Body Designation

- A - Cutlass Ciera, Cutlass Cruiser, Century, Century Wagon
- B - Caprice, Caprice Wagon, Roadmaster Wagon, Coachbuilder Wagon, Roadmaster
- C - Ninety-Eight, Park Avenue
- D - Fleetwood, Limousine, Funeral Coach/Hearse
- E - Eldorado
- F - Camaro, Firebird/Formula
- G - Riviera, Aurora
- H - Bonneville, Eighty-Eight, LeSabre
- J - Cavalier, Sunfire
- K - Seville
- Ksp - Deville/Concours
- L - Corsica, Beretta
- N - Grand Am, Achieva, Skylark
- W - Grand Prix, Regal, Cutlass Supreme, Lumina, Monte Carlo
- Y - Corvette
- Z - Saturn SC, SL, SW

Digit 3 - Trim Level

B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z

Digits 4 & 5 - Body Style

- | | |
|----------------------------|----------------------------|
| 07 - 2Dr Sport Coupe | 37 - 2Dr Hardtop Coupe |
| 08 - 2Dr Hatchback Coupe | 47 - 2Dr Hardtop Coupe |
| 11 - 2Dr Notchback | 57 - 2Dr Hardtop Coupe |
| 15 - 2Dr Station Wagon | 67 - 2Dr Convertible Coupe |
| 19 - 4Dr Sedan | 68 - 4Dr Hatchback Sedan |
| 23 - 4Dr Aux. Seat Sedan | 69 - 4Dr (Notchback) Sedan |
| 27 - 2Dr (Notchback) Coupe | 77 - 2Dr Hatchback Coupe |
| 29 - 4Dr Sedan | 87 - 2Dr Hatchback Coupe |
| 35 - 4Dr Station Wagon | 90 - Commerical Chassis |

ISSUED: ML-TP098

REVISED: ML-TR036A

17-TGM2.2V8GKEK-1

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MANUFACTURER: GENERAL MOTORS CORP. ENGINE FAMILY: TGM2.2V8GKEK EVAP. FAMILY: TGM1089AYMEA
 ALL ENGINE CODES IN ENGINE FAMILY: CA X 49S X 50S AB965
 EXH STD: CA Tier-1 X TLEV LEV ULEV ZEV ; U.S. EPA Tier-1 X
 EVAP STD: 50K USEFUL LIFE WITH R/L X; IN-USE EXH STD: FULL X ALTERNATIVE
 VEH CLASS(ES): PC X LDT1 LDT2 MDV1 MDV2 MDV3 MDV4 MDV5
 SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: NA
 FUEL TYPE(S): DEDICATED X GASOLINE X; EMISS TEST FUEL(S): INDO PHASE 2 X
 SERVICE ACCUM: STD AMA MFR ADP X; NMOG TEST PROC: NA EQUIV
 R/L TEST PROC: PT SOURCE X; HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4 X V6 V8 DISPLACEMENT: 2.2 LITERS/ 134 CU. IN.
 VALVES/CYLINDER: 2 X 4 RATED HP: 120 @ 5200 RPM
 ENGINE LOCATION: FRONT X DRIVE: FWD X RWD 4WD-FT 4WD-PT
 EXHAUST EMISSION CONTROL SYSTEM: EGR, O2S, HO2S, SFI, TWC
 RLHP/DPA VALUES: SECTION 08.13.02.00

ENG CODE (LOC)	VEH MODELS (SEE PAGE 1)	TRANS. (M5, A4 ETC.)	EQUIV. TEST WEIGHT	IGNITION (ECM/PCM) PART NO./CALIB	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
21A	1JC37 1JC69 1JF69 2JB37 2JB69	M5	2875 3000	16231851/16231503	17096100, 17096306	25160523
21B				16231851/16234133		
21C				16231851/16235113		
22A	1JC37 1JC69 1JF69 2JB37 2JB69		3125 3000 3125	16231851/16231503		
22B				16231851/16234133		
22C				16231851/16235113		

CARLINE NAME	CARLINE CODE
CHEVROLET CAVALIER	12060
PONTIAC SUNFIRE	33060

ISSUED: ML-TP098

REVISED: ML-TR036A, ML-TR049, ML-TP136, ML-TR056, ML-TR094

17-TGM2.2V8GKEK-2

EMISSION DATA RATIOS
TO BE USED FOR ASSEMBLY LINE TESTING

	<u>2217JL1483</u> <u>(CONFIG 000)</u>	<u>2217JL1483</u> <u>(CONFIG 001)</u>
NMHC* (G/MI)	0.0632	0.0864
NMOG (G/MI)	0.0652	0.0883
HCHO (G/MI)	0.0010	0.0011
NMOG:NMHC	1.0316	1.0220
HCHO:NMHC	0.0158	0.0127

* NMHC includes methane response factor.

Average NMOG:NMHC = 1.027

Average HCHO:NMHC = 0.014

Ratio established using Phase 2 emission certification fuel.

ISSUED: ML-TP097

REVISED: ML-TP187

17-TGM2.2V8G2EK-7