File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-745
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 1997 model-year General Motors Corporation exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: VGM2.2V8G1EK 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:

Miles	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide (20°F)
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:

Miles	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide (20°F)
50,000	0.14	2.2	0.3	6.4
100,000	0.17	2.9	0.5	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 18 day of July 1996.

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

(FOR CARB USE ONLY)

E.O. #A-6-745

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

C - Ninety-Eight, Park Avenue
E - Eldorado
F - Camaro, Firebird/Formula
G - Riviera, Aurora
H - Bonneville, Eighty-Eight, LeSabre
J - Cavalier, Sunfire
K - Seville
Ksp - Deville/Concours
N - Grand Am, Achieva, Skylark, Malibu, Cutlass Supreme
V - Catera
W - Grand Prix, Regal, Century, 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
08 - 2Dr Hatchback Coupe
11 - 2Dr Notchback
15 - 2Dr Station Wagon
19 - 4Dr Sedan
23 - 4Dr Aux. Seat Sedan
27 - 2Dr (Notchback) Coupe
29 - 4Dr Sedan
35 - 4Dr Station Wagon
37 - 2Dr Hardtop Coupe
47 - 2Dr Hardtop Coupe
57 - 2Dr Hardtop Coupe
67 - 2Dr Convertible Coupe
68 - 4Dr Hatchback Sedan
69 - 4Dr (Notchback) Sedan
77 - 2Dr Hatchback Coupe
87 - 2Dr Hatchback Coupe
90 - Commercial Chassis

ISSUED: ML-VP145 REVISED:

17-VGM2.2V8G1EK-1
(1997)

(FOR CARB USE ONLY)

E.O. #A-6-745

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM2.2V8G1EK EVAP FAMILY: VGM1095AYMEA

ALL ENGINE CODES IN ENGINE FAMILY: CA (X) 49S ( ) 50S ( ) AB965 ( )

EXH STD: CA TIER-1 (X) TLEV ( ) LEV ( ) ULEV ( ) ZEV ( ); U.S. EPA TIER-1 ( )

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 STANDARD FOR MULTI-CLASS ENGINE FAMILY: NA

FUEL TYPE(S): DEDICATED (X) GASOLINE (X); EMISSION TEST FUEL(S): INDOLENE ( ) PHASE 2 (X)

SERVICE ACCUMULATION: STD AMA ( ) MFR ADP (X); NMOG TEST PROCEDURE: NA (X) EQUIV ( )

R/L TEST PROCEDURE: NA ( ) 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 ( ) 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, TWC, SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (LOC)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	IGNITION (PCM/CALIB PART NO.)	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
15	1JC37 1JC69 2JB37 2JB69	M5	3000	16204850/16251913	17096100, 17096306	25160523
15A				16204850/16252203		
15B				16204850/16253063		
15C				16204850/16254703		
15D				16204850/16258513		
15E				16204850/16259653		
16	1JC37 1JC69 2JB37 2JB69		3125	16204850/16251913		
16A				16204850/16252203		
16B				16204850/16253063		
16C				16204850/16254703		
16D				16204850/16258513		
16E				16204850/16259653		

CARLINE NAME	CARLINE CODE
CAVALIER	12060
SUNFIRE	33060

ISSUED: ML-VP145 REVISED: ML-VR067, ML-VR074, ML-VR084, ML-VR114, ML-VR126

EMISSION DATA RATIOS

TO BE USED FOR ASSEMBLY LINE TESTING

	2217JL1483 (Config 010)	2217JL1483 (Config 013)
NMHC* (G/MI)	0.0632	0.1069
NMOG (G/MI)	0.0652	0.1101
HCHO (G/MI)	0.0010	0.0013
NMOG:NMHC	1.0316	1.0299
HCHO:NMHC	0.0158	0.0122

* NMHC includes methane response factor.

Average NMOG:NMHC = 1.031

Average HCHO:NMHC = 0.014

Ratio established using Phase 2 emission certification fuel.

ISSUED: ML-VP123 REVISED: ML-VP220

17-VGM2.2V8G2EK-8
(1997)