

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-757  
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 light-duty trucks:

Fuel Type: Gasoline

Engine Family: VGM2.218G1EK Displacement: 2.2 Liters (134 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Exhaust Gas Recirculation
- Three Way Catalytic Converter
- Heated Oxygen Sensor
- 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:

Loaded Vehicle <u>Weight(lbs.)</u>	<u>Miles</u>	Non-Methane <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	Carbon <u>Monoxide (20°F)</u>
0-3750	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:

Loaded Vehicle <u>Weight(lbs.)</u>	<u>Miles</u>	Non-Methane <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	Carbon <u>Monoxide (20°F)</u>
0-3750	50,000	0.15	2.2	0.3	7.8
	100,000	0.21	3.0	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 21<sup>st</sup> day of May 1996.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

## LIGHT DUTY TRUCK MODEL NUMBER DEFINITION

(Includes California Medium Duty Trucks)

E.O. #A-6-757

Example, Pattern A: CC10703+E62

Example, Pattern B: 1UM05

### Digit 1 = Marketing Division

#### Pattern A

C = Chevrolet  
T = GMC  
H = Oldsmobile  
G = Isuzu

#### Pattern B

1 = Chevrolet  
2 = Pontiac  
3 = Oldsmobile

Note: Digit 1 is only used for Pattern A models on engine family pages or California Supplemental Data Sheets when necessary to discriminate by division model.

### Digit 2 = Chassis Type (all)

U = Conventional 4x2 Front Wheel Drive  
C, S, M = Conventional 4x2 Rear Wheel Drive  
G = Forward Control 4x2 Rear Wheel Drive  
K, T, L = Conventional 4x4 Four Wheel Drive, All Wheel Drive

### Digit 3 = Series/GVWR

#### Pattern A

1 = 11,15,1500/3500-7300  
2 = 21,25,2500/6400-8600  
3 = 31,35,3500/7100-14500

#### Pattern B

Letter code designates trim level rather than series/GVWR.

### Digits 4 & 5

#### Pattern A = Dimensional Grouping

05 = Utility: Tahoe (2Dr), Yukon (2Dr), Blazer, Jimmy, Bravada  
06 = S/T Short Box  
07 = C/K Short Box, Tahoe (4Dr), Yukon (4Dr)  
08 = S/T Long Box & Cab-Chassis  
09 = C/K Long Box, Suburban  
10 = M/L Long Body  
14 = G Short Wheelbase  
17 = G Long Wheelbase

#### Pattern B = Body Style

06 = Passenger (Venture, Trans Sport, Silhouette)  
16 = Passenger (Venture, Trans Sport, Silhouette) Dual Sliding Doors

### Digits 6 & 7 = Body/Cab Codes (Pattern A Only)

03 = Conventional Cab, Cab-Chassis  
05 = Cargo Van  
06 = Passenger Van, 4 Door Special Purpose Vehicle  
16 = 2 Door Special Purpose Vehicle  
43 = Crew Cab  
53 = Extended Cab

### Pickup Body Codes (Optional, Used with Pattern A Only)

+E62 = Stepside, Fenderside  
+E63 = Fleetside, Wideside

ISSUED: ML-VP102

REVISED:

17-VGM2.218G1EK-1  
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM2.218G1EK 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 ( ) LDT1 (X) 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): INDOLINE ( ) 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 (X) 4 ( ) RATED HP: 118 @ 5200 RPM  
 ENGINE LOCATION: FRONT (X) DRIVE: FWD ( ) RWD (X) 4WD-FT ( ) 4WD-PT ( )  
 EXHAUST EMISSION CONTROL SYSTEM: TWC, EGR, O2S, HO2S, SFI  
 RLHP / DPA VALUES: SECTION 08.13.02.00

ENG CODE (OC)	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.
11	S10603+E62 S10603+E63 S10803+E63 JS10603+E63 S10653+E62 S10653+E63 JS10653+E63	A4	3375    3500	16204850/16234863	17096100, 17096306	25163564
11A				16204850/16251143		
11B				16204850/16255003		
11C				16204850/16258713		
11D				16204850/16263023		

CARLINE NAME	CARLINE CODE
S10 PICKUP 2WD	55082
SONOMA 2WD	80072
HOMBRE P/U 2WD	84020

ISSUED: ML-VP102

REVISED: ML-VR055, ML-VR082, ML-VR095, ML-VR114, ML-VR095A, ML-VR126

17-VGM2.218G1EK-2  
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM2.218G1EK EVAP FAMILY: VGM1095AMEA

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.
12	S10603+E62 S10603+E63 JS10603+E63 S10803+E63 S10653+E62 S10653+E63 JS10653+E63	A4	3375  3500  3625	16204850/16234863	17096100, 17096306	25163564
12A				16204850/16251143		
12B				16204850/16255003		
12C				16204850/16258713		
12D				16204850/16263023		
13	S10603+E62 JS10603+E63 S10603+E63 S10803+E63	M5	3250 3375	16214850/16234803		
13A				16214850/16251083		
13B				16214850/16253123		
13C				16214850/16254943		
13D				16214850/16258693		
13E				16214850/16259983		
14	JS10603+E63 S10603+E62 S10603+E63 S10803+E63		3375	16214850/16234803		
14A				16214850/16251083		
14B				16214850/16253123		
14C				16214850/16254943		
14D				16214850/16258693		
14E				16214850/16259983		

CARLINE NAME	CARLINE CODE
S10 PICKUP 2WD	55082
SONOMA 2WD	80072
HOMBRE PU 2WD	84020

ISSUED: ML-VP102                      REVISED: ML-VR055, ML-VR074, ML-VR082, ML-VR079, ML-VR114, ML-VR126

17-VGM2.218G1EK-3  
(1997)

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: VGM2.218G1EK EVAP FAMILY: VGM1095AMEA

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	S10653+E62 S10653+E63 S10803+E63		3500	16214850/16234813	17096100, 17096306	25163564
15A				16214850/16251113		
15B				16214850/16253143		
15C				16214850/16254973		
15D				16214850/16258703		
15E				16214850/16263013		
16	S10653+E62 S10653+E63 S10803+E63			16214850/16234813		
16A				16214850/16251113		
16B				16214850/16253143		
16C				16214850/16254973		
16D				16214850/16258703		
16E				16214850/16263013		
17	JS10653+E63		3625	16214850/16257253		
17A				16214850/16258723		
17B				16214850/16253023		
18	JS10653+E63			16214850/16257253		
18A				16214850/16258723		
18B				16214850/16253023		

<u>CARLINE NAME</u>	<u>CARLINE CODE</u>
S10 PICKUP 2WD	55082
SONOMA 2WD	80072
HOMBRE PU 2WD	84020

ISSUED: ML-VR126

REVISED:

17-VGM2.218G1EK-3.1  
(1997)

**EMISSION DATA RATIOS**  
**TO BE USED FOR ASSEMBLY LINE TESTING**

	<u>34T6U051</u> <u>(Config 000)</u>	<u>34T6U051</u> <u>(Config 001)</u>
NMHC* (G/MI)	0.0650	0.0701
NMOG (G/MI)	0.0675	0.0720
HCHO (G/MI)	0.0012	0.0013
NMOG:NMHC	1.0385	1.0271
HCHO:NMHC	0.0185	0.0185

\* NMHC includes methane response factor.

Average NMOG:NMHC = 1.033

Average HCHO:NMHC = 0.018

Ratio established using Phase 2 emission certification fuel.

ISSUED: ML-VP058

REVISED: ML-VP219

17-VGM3.428G2EK-7  
(1997)