State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-812
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 1998 model-year General Motors Corporation exhaust emission control systems are certified as described below for medium-duty vehicles:

Fuel Type: Gasoline

Engine Family: WGMXA05.7184 Displacement: 5.7 Liters (350 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Exhaust Gas Recirculation
Sequential Multiport Fuel Injection
Dual Three Way Catalytic Converters
Dual Heated Oxygen Sensors (two)

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:

Test Weight (lbs.)	Miles	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide (20°F)
5751-8500	50,000	0.39	5.0	1.1	12.5
	120,000	0.56	7.3	1.53	n/a

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

Test Weight (lbs.)	Miles	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide (20°F)
5751-8500	50,000	0.19	2.7	0.4	5.7
	120,000	0.26	4.1	0.47	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 medium-duty vehicle phase-in 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" (Title 13, California Code of Regulations, Section 1960.1(h)(2)).

BE IT FURTHER RESOLVED: That under the submitted medium-duty vehicle phase-in compliance plan, if the manufacturer incurs "Vehicle Equivalent Debits" for the aforementioned model year due to the manufacturer's failure to produce and deliver for sale in California the equivalent quantity of medium-duty vehicles certified to low-emission vehicle and/or ultra-low-emission vehicle exhaust emission standards required by the above-referenced standards and test procedures, all "Vehicle Equivalent Debits" incurred 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 and Smog Index 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 28th day of April 1997.

R. B. Summerfield, Chief
Mobile Source Operations Division

LIGHT DUTY TRUCK MODEL NUMBER DEFINITION

(Includes California Medium Duty Trucks)

E.O. #A-6-812

Example, Pattern A: CC10703+E62
Example, Pattern B: 1UM05

Digit 1 = Marketing Division

Pattern A
C = Chevrolet
T = GMC
H = Oldsmobile
J = 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-WP065 REVISED:

17-WGMXA05.7184-1
(1998)

(FOR CARB USE ONLY)

E.O. #A-6-812

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: WGMXA05.7184 EVAP FAMILY: WGMXE0111907

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 ( ) LDT2 ( ) MDV1 ( ) MDV2 ( ) MDV3 (X) 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 ( ) V6 ( ) V8 (X) DISPLACEMENT: 5.7 LITERS / 350 CU. IN.

VALVES / CYLINDER: 2 (X) 4 ( ) RATED HP: 225 @ 4600 RPM

ENGINE LOCATION: FRONT (X) DRIVE: FWD ( ) RWD (X) 4WD-FT ( ) 4WD-PT ( )

EXHAUST EMISSION CONTROL SYSTEM: EGR, 2HO2S, 2TWC, SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
51, 52	C	C20753	A4	6000	17096309, 25312788	25153032
55, 56			M5			

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME	CARLINE CODE
C2500 PICKUP 2WD	03020
C2500 SIERRA 2WD	04015

ISSUED: ML-WP065 REVISED:

17-WGMXA05.7184-2
(1998)

17-57184

(FOR CARB USE ONLY)

E.O. #A-6-812

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: WGMXA05.7184 EVAP FAMILY: WGMXE0111908

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 ( ) LDT2 ( ) MDV1 ( ) MDV2 ( ) MDV3 (X) 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 ( ) V6 ( ) V8 (X) DISPLACEMENT: 5.7 LITERS / 350 CU. IN.

VALVES / CYLINDER: 2 (X) 4 ( ) RATED HP: 225 @ 4600 RPM

ENGINE LOCATION: FRONT (X) DRIVE: FWD ( ) RWD (X) 4WD-FT ( ) 4WD-PT ( )

EXHAUST EMISSION CONTROL SYSTEM: EGR, 2HO2S (2), 2TWC, SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
51, 52	C	C20903	A4	6000	17096309, 25312788	25153032
55, 56			M5			

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME	CARLINE CODE
C2500 PICKUP 2WD	03020
C2500 SIERRA 2WD	04015

ISSUED: ML-WP065 REVISED:

17-WGMXA05.7184-3
(1998)

17-57184

(FOR CARB USE ONLY)

E.O. #A-6-812

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: WGMXA05.7184 EVAP FAMILY: WGMXE0111908

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 ( ) LDT2 ( ) MDV1 ( ) MDV2 ( ) MDV3 (X) 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 ( ) V6 ( ) V8 (X) DISPLACEMENT: 5.7 LITERS / 350 CU. IN.

VALVES / CYLINDER: 2 (X) 4 ( ) RATED HP: 225 @ 4600 RPM

ENGINE LOCATION: FRONT (X) DRIVE: FWD ( ) RWD ( ) 4WD-FT ( ) 4WD-PT (X)

EXHAUST EMISSION CONTROL SYSTEM: EGR, 2HO2S, (2) 2TWC, SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
51, 52	C	K10953	A4	6000	17096309, 25312788	25153032
55, 56			M5			

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME	CARLINE CODE
K1500 PICKUP 4WD	03030
K1500 SIERRA 4WD	04020

ISSUED: ML-WP065 REVISED:

17-WGMXA05.7184-4
(1998)

17-57184

(FOR CARB USE ONLY)

E.O. #A-6-812

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: WGMXA05.7184 EVAP FAMILY: WGMXE0111907

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 ( ) LDT2 ( ) MDV1 ( ) MDV2 ( ) MDV3 (X) 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 ( ) V6 ( ) V8 (X) DISPLACEMENT: 5.7 LITERS / 350 CU. IN.

VALVES / CYLINDER: 2 (X) 4 ( ) RATED HP: 225 @ 4600 RPM

ENGINE LOCATION: FRONT (X) DRIVE: FWD ( ) RWD (X) 4WD-FT ( ) 4WD-PT ( )

EXHAUST EMISSION CONTROL SYSTEM: EGR, 2HO2S, 2TWC, SFI

RLHP / DPA VALUES: SECTION 08.13.02.00

ENGINE CODE & LETTER DERIVATIVES*1	LOC (C/F/NW)	VEH MODELS (SEE PAGE 1)	TRANS (M5,A4,ETC.)	EQUIV. TEST WEIGHT	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
57	C	G11405 G11406 G21405 G21705	A4	6000	17096309, 25312788	25153032
58		G11405 G11406 G21405 G21705		6500		

*1 Base engine codes are the same as letter derivatives unless otherwise noted. Refer to PCM/VCM part number page for additional engine code letter derivative information.

CARLINE NAME	CARLINE CODE
G1500/G2500 CHEVROLET EXPRESS 2WD	03040
G1500/G2500 CHEVROLET VAN 2WD	03050
G1500/G2500 SAVANA 2WD PASSENGER	04030
G1500/G2500 SAVANA 2WD CARGO	04040

ISSUED: ML-WP065 REVISED:

(FOR CARB USE ONLY)

E.O. #A-6-812

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PCM AND CALIBRATION PART NUMBERS

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: WGMXA05.7184 EVAP FAMILY: WGMXE0111907, WGMXE0111908

ENGINE CODE	PCM/VCM PART NUMBER	ENGINE CALIB	OPER CALIB	TRANS CALIB
51, 52	16214835/BNSA	16216025	16215972PB	16216015 (3.42), 16216106 (3.73)
51A,52A	16249385/BZBY	16216025	16258745PC	
51B,52B	16258835/CCSF, 16266655/CFFR	16267631	16263425PD	
51C,52C		16249509		
51D,52D	09355655/CLNR	09364759	09365095PE	
55, 56	16214835/BNSA	16216021	16215972PB	16216140
55A,56A	16249385/BZBY	16216021	16258745PC	
55B,56B	16258835/CCSF, 16266655/CFFR	16267628	16263425PD	
55C,56C		16249506		
55D,56D	09355655/CLNR	09364756	09365095PE	
57, 58	16258835/CCSF, 16266655/CFFR	16215990	16263425PD	16216106 (G10/20: 3.42), 16216080 (G10: 3.73)
57A,58A	16249385/BZBY	16215990	16258745PC	
57B,58B	16258835/CCSF, 16266655/CFFR	16267599	16263425PD	
57C,58C		16249489		
57D,58D	09355655/CLNR	09360077	09365095PE	

ISSUED: ML-WP065 REVISED: ML-WR009, ML-WR009A, ML-WR061, ML-WR093, ML-WR102, ML-WR102A

EMISSION DATA RATIOS

TO BE USED FOR ASSEMBLY LINE TESTING

	57T6K038 (Config 004)	57T6K038 (Config 005)
NMHC* (G/MI)	0.0716	0.0697
NMOG (G/MI)	0.0736	0.0718
HCHO (G/MI)	0.0012	0.0010
NMOG:NMHC	1.0279	1.0301
HCHO:NMHC	0.0168	0.0143

* NMHC includes methane response factor.

Average NMOG:NMHC = 1.029

Average HCHO:NMHC = 0.016

Ratio established using Phase 2 emission certification fuel.