

F. Hall

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-729
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 medium-duty vehicles:

Fuel Type: Gasoline

Engine Family: TGM7.4J8G1EK Displacement: 7.4 Liters (454 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Exhaust Gas Recirculation
- Dual Three Way Catalytic Converters
- Dual Heated Oxygen Sensors (Two)
- Sequential Multiport Fuel Injection
- Secondary Air 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>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>Non-Methane</u> <u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>
5751-8500	50,000	0.39	5.0	1.1
	120,000	0.56	7.3	1.53

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

<u>Test Weight</u> <u>(lbs.)</u>	<u>Miles</u>	<u>Non-Methane</u> <u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>
5751-8500	50,000	0.29	3.2	0.6
	120,000	0.30	3.4	0.57

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the 50,000-mile evaporative emission standards applicable to 1980 through 1994 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, based on the evaporative emission phase-in compliance schedule submitted by the vehicle manufacturer, the listed vehicle models shall not be subject to the running loss and useful life standards set forth in the "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 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).

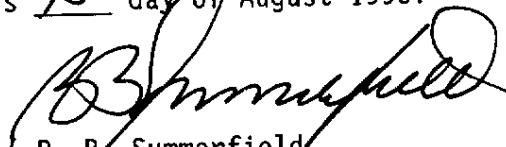
BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned 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 15th day of August 1995.



R. B. Summerfield
Assistant Division Chief
Mobile Source Division

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES

Example, Pattern A: CC10703+E62

Example, Pattern B: 1UM05

Digit 1 = Marketing Division

<u>Pattern A</u>	<u>Pattern B</u>
C = Chevrolet	1 = Chevrolet
T = GMC	2 = Pontiac
H = Oldsmobile	3 = Oldsmobile
G = Isuzu	

Note: Digit 1 is not used for Pattern A models on engine family pages or California Supplemental Data Sheets.

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

<u>Pattern A</u>	<u>Pattern B</u>
1 = 11,15,1500/3500-7300	Letter code designates trim level rather than series/GVWR.
2 = 21,25,2500/6400-8600	
3 = 31,35,3500/7100-14500	

Digits 4 & 5

<u>Pattern A = Dimensional Grouping</u>	<u>Pattern B</u>
05 = Blazer, Jimmy, Bravada	05 = Cargo (APV)
06 = S/T Short Box	06 = Passenger (Lumina APV, Trans Sport, Silhouette)
07 = C/K Short Box	
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	

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
+ZW9 = Cab-Chassis

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: TGM7.4J8G1EK EVAP. FAMILY: TGM1098AYMBA
 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 X
 EVAP STD: 50K X USEFUL LIFE WITH R/L ; IN-USE EXH STD: FULL ALTERNATIVE X
 VEH CLASS(ES): PC LDT1 LDT2 MDV1 MDV2 MDV3 X 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: NA PT SOURCE ; HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4 V6 V8 X DISPLACEMENT: 7.4 LITERS/ 454 CU. IN.
 VALVES/CYLINDER: 2 X 4 RATED HP: 290 @ 4200 RPM
 ENGINE LOCATION: FRONT X DRIVE: FWD RWD X 4WD-FT 4WD-PT
 EXHAUST EMISSION CONTROL SYSTEM: EGR, 2HO2S(2), 2TWC, SFI, AIR
 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.	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
51	C20906	A4	7000	16177425/BBAH	17096200	25160620
	C30903+E63		7000	16187577PG-OPER		
			7500	16187624-ENG		
	C30943+E63		7500	16187808,		
			8000	16187809,		
	C30953+E63		7000	16187802-TRANS		
			8000			
	C20903+E63		7000			
	C20753+E63					
	C20953+E63					
51A				16227535-ENG		
				16232915PG-OPER		
				16227587(3.42/3.73),		
				16227588(4.10/4.56)-TRANS		
51B				16235505PH-OPER		
				16227598(3.42/3.73),		
				16227599(4.10/4.56)-TRANS		
51C				16237015PJ-OPER		
				16227598(3.42/3.73),		
				16227599(4.10/4.56)-TRANS		

CARLINE NAME	CARLINE CODE
C2500 SUBURBAN 2WD	55066
C2500 SUBURBAN 2WD	80056
C3500 PICKUP 2WD	55021
C3500 SIERRA 2WD	80016

ISSUED: ML-TP096

REVISED: ML-TR012, ML-TR057, ML-TR080

17-TGM7.4J8G1EK-2

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: TGM7.4J8G1EK EVAP. FAMILY: TGM1098AYMBAALL 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 XEVAP STD: 50K_X USEFUL LIFE WITH R/L__; IN-USE EXH STD: FULL__ ALTERNATIVE_XVEH CLASS(ES): PC__ LDT1__ LDT2__ MDV1__ MDV2__ MDV3_X MDV4__ MDV5__SINGLE CERT STD FOR MULTI-CLASS ENGINE FAMILY: NAFUEL TYPE(S): DEDICATED_X GASOLINE_X; EMISS TEST FUEL(S): INDO__ PHASE 2_XSERVICE ACCUM: STD AMA__ MFR ADP_X; NMOG TEST PROC: NA EQUIV__R/L TEST PROC: NA PT SOURCE__; HYBRID TYPE: NA APU CYCLE: NAENGINE CONFIGURATION: I4__ V6__ V8_X DISPLACEMENT: 7.4 LITERS / 454 CU. IN.VALVES/CYLINDER: 2_X 4__ RATED HP: 290 @ 4200 RPMENGINE LOCATION: FRONT_X DRIVE: FWD__ RWD_X 4WD-FT__ 4WD-PT_XEXHAUST EMISSION CONTROL SYSTEM: EGR, 2HO2S(2), 2TWC, SFI, AIRRLHP/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.	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
51	K20906	A4	7500	16177425/BBAH	17096200	25160620
	K30903+E63		7500	16187577PB-OPER		
	K30943+E63		8000	16187624-ENG		
			7500	16187832,		
	8500		16187833,			
K30953+E63	8000	16187837,				
	K20903+E63	7000	16187838-TRANS			
	K20753+E63	7500	16227535-ENG			
	K20953+E63					
51A			16232915PG-OPER			
			16227587(3.42/3.73),			
			16227588(4.10/4.56)-TRANS			
51B			16235505PH-OPER			
			16227598(3.42/3.73),			
			16227599(4.10/4.56)-TRANS			
51C			16237015PH-OPER			
51D			16232401-ENG			

CARLINE NAME	CARLINE CODE
K2500 SUBURBAN 4WD	55081
K2500 SUBURBAN 4WD	80071
K3500 PICKUP 4WD	55036
K3500 SIERRA 4WD	80026

SUED: ML-TP096

REVISED: ML-TR012, ML-TR057, ML-TR080, ML-TR083, ML-TR012A, ML-TR115

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

MFR: GENERAL MOTORS CORP. ENGINE FAMILY: TGM7.4J8G1EK EVAP. FAMILY: TGM1098AYMBA
 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 X
 EVAP STD: 50K X USEFUL LIFE WITH R/L___ ; IN-USE EXH STD: FULL___ ALTERNATIVE X
 VEH CLASS(ES): PC___ LDT1___ LDT2___ MDV1___ MDV2___ MDV3 X 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: NA PT SOURCE___ ; HYBRID TYPE: NA APU CYCLE: NA
 ENGINE CONFIGURATION: I4___ V6___ V8 X DISPLACEMENT: 7.4 LITERS/ 454 CU. IN.
 VALVES/CYLINDER: 2 X 4___ RATED HP: 290 @ 4200 RPM
 ENGINE LOCATION: FRONT X DRIVE: FWD___ RWD X 4WD-FT___ 4WD-PT___
 EXHAUST EMISSION CONTROL SYSTEM: EGR, 2HO2S(2), 2TWC, SFI, AIR
 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.	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
52	C20906	A4	7500	16177425/BBAH	17096200	25160620
	C30903+E63		7000	16187577PB-OPER		
			8000	16187624-ENG		
	C30943+E63		7500	16187808.		
			8000	16187809.		
	C30953+E63		7500	16187802-TRANS		
	C20903+E63		7000			
	C20753+E63					
	C20953+E63					
52A				16227535-ENG		
				16232915PG-OPER		
				16227587(3.42/3.73).		
				16227588(4.10/4.56)-TRANS		
52B				16235505PH-OPER		
				16227598(3.42/3.73).		
				16227599(4.10/4.56)-TRANS		
52C				16237015PH-OPER		
				16227598(3.42/3.73).		
				16227599(4.10/4.56)-TRANS		

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ISSUED: ML-TP096

REVISED: ML-TR012, ML-TR057, ML-TR080

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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 X

EVAP STD: 50K X USEFUL LIFE WITH R/L___; IN-USE EXH STD: FULL___ ALTERNATIVE X

VEH CLASS(ES): PC___ LDT1___ LDT2___ MDV1___ MDV2___ MDV3 X 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: NA PT SOURCE___; HYBRID TYPE: NA APU CYCLE: NA

ENGINE CONFIGURATION: I4___ V6___ V8 X DISPLACEMENT: 7.4 LITERS / 454 CU. IN.

VALVES/CYLINDER: 2 X 4 RATED HP: 290 @ 4200 RPM

ENGINE LOCATION: FRONT X DRIVE: FWD___ RWD X 4WD-FT___ 4WD-PT X

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

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.	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
52	K20906 K30903+E63	A4	7500 7500 8000	16177425/BBAH 16187577PB-OPER 16187624-ENG	17096200	25160620
	K30943+E63		8500	16187832, 16187833,		
	K30953+E63 K20903+E63 K20753+E63 K20953+E63		8000 7000 7500	16187837, 16187838-TRANS		
52A				16227535-ENG 16232915PG-OPER 16227587(3.42/3.73), 16227588(4.10/4.56)-TRANS		
52B				16235505PH-OPER 16227598(3.42/3.73), 16227599(4.10/4.56)-TRANS		
52C				16237015PJ-OPER		
52D				16232401-ENG		

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K2500 SUBURBAN 4WD	55081
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K3500 SIERRA 4WD	80026

ISSUED: ML-TP096

REVISED: ML-TR012, ML-TR057, ML-TR080, ML-TR083, ML-TR012A, ML-TR115

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ENG CODE (LOC)	VEH MODELS (SEE PAGE 1)	TRANS. (M5,A4 ETC.)	EQUIV. TEST WEIGHT	IGNITION (ECM/PCM) PART NO.	EGR SYSTEM PART NO.	CATALYTIC CONVERTER PART NO.
53,53M, 54,54M	G31405 G31406 G31705 G31706	A4	7500 8000 7500 8000	16213165/BNHL, 16177425/BBAH 16187739-ENG 16187577PB-OPER 16187857(3.42), 16187858(3.73), 16187859(4.10)-TRANS	17096200	25160620
53A,54A, 53N,54N				16227536-ENG 16232915PG-OPER 16227587(3.42/3.73), 16227588(4.10/4.56)-TRANS		
53B,54B, 53P,54P				16235505PH-OPER 16227598(3.42/3.73), 16227599(4.10/4.56)-TRANS		
53C,54C, 53Q,54Q				16237015PJ-OPER		
53D,54D, 53R,54R				16232402-ENG		

CARLINE NAMECARLINE CODEG3500 CHEV EXPRESS 2WD
G3500 CHEV VAN 2WD
G3500 SAVANA 2WD (PASS.)
G3500 VANDURA 2WD55052
55056
80046
80042

ISSUED: ML-TP096

REVISED: ML-TR012, ML-TR057, ML-TR080, ML-TR083, ML-TR115

EMISSION DATA RATIOS
TO BE USED FOR ASSEMBLY LINE TESTING

	<u>19425912</u> (Config 005)	<u>19425912</u> (Config 006)	<u>19425913</u> (Config 005)	<u>19425913</u> (Config 006)
NMHC* (G/MI)	0.0368	0.0389	0.0385	0.0432
NMOG (G/MI)	0.0377	0.0396	0.0393	0.0439
HCHO (G/MI)	0.0003	0.0003	0.0002	0.0004
NMOG:NMHC	1.0245	1.0180	1.0208	1.0162
HCHO:NMHC	0.0082	0.0077	0.0052	0.0093

* NMHC includes methane response factor.

Average NMOG:NMHC = 1.020

Average HCHO:NMHC = 0.008

Ratio established using Phase 2 emission certification fuel.