State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-381
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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1987 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered medium-duty vehicles:

Engine Family	Displacement Cubic Inches (Liters)		Exhaust Emission Control Systems (Special Features)
H3G7.4T5FCY2 (HGC7.4T5HAC3)	454	(7.4)	Air Injection Pump Exhaust Gas Recirculation Three-Way Catalyst Oxidation Catalyst Oxygen Sensor (Central Fuel Injection)

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

The following are the emission standards for this engine family:

Equivalent Inertia Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per mile
4000-5999	0.50	9.0	1.0
6000 & larger	0.60	9.0	1.5

The following are the certification emission values for this engine family:

Equivalent Inertia Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
4000-5999	0.14	4.2	0.7
6000 & Larger	0.13	2.0	0.8

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered 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" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1981 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 Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) 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 regulations (Title 13, California Administrative Code, 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 1st day of August, 1986.

K. D. Drachand, Chief
Mobile Source Division

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2
(H3C7.4T5HAC3)

Evaporative Family: 7FO-3H

Engine CID (Liters) - Type: 454 (7.4) V-8

ABBREVIATIONS:

Ignition System
- CA-Centrifugal Advance
- EEC-Electronic Engine Control
- EI-Electronic Ignition
- ESAC-Electronic Spark Advance Control
- VA-Vacuum Advance
- VR-Vacuum Retard
- ECU-Electronic Control Unit

Fuel System
CFI, CL, DID, DIP, ~~EFI~~ CFI, MFI
nV-nVenturi Carburetor

GM Abbreviations
- A/C-Air Conditioning
- FC-Forward Control
- HD-Heavy Duty
- CID-Cubic Inch Displacement
- TBI-Throttle Body Injection
- RWD-Rear Wheel Drive
- 4x2-Two Wheel Drive
- 4x4-Four Wheel Drive
- 6x4-Four Wheel Drive

Exhaust Emission Cont System
- AIP-Air Injection Pump
- AIV-Air Injection Valve
- CL-Closed Loop
- EGR-Exhaust Gas Recirculation
- EM-Engine Modification
- OC-Oxidation Catalyst System
- SPL-Smoke Puff Limiter or Throttle Delay
- TOC-Trap Oxidizer, Continual
- TOP-Trap Oxidizer, Periodical
- TR-Thermal Reactor
- TWC-Three-Way Catalyst System

Special Features
- CCV-Combustion Chamber Valve
- CFI-Central Fuel Injection
- DID-Diesel Injection-Direct
- DIP-Diesel Injection-Prechamber
- ~~EFI-Electronic~~ Central Fuel Injection
- IC-Intercooler/Aftercooler
- MFI-Mechanical Fuel Injection
- TC-Turbocharger

Engine: Front (all Vehicles)

Drive: See Chassis Type (Page 2), all 4x2 vehicles are RWD.

ISSUED: 07-14-86 REV. NO.:

0109S

(For CARB Use Only)
(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation
Engine Family: H3G7.4T5FCY2
(HGC7.4T5HAC3)
Engine CID (Liters) - Type: 454 (7.4) V-8

Executive Order No.: A-6-381
Evaporative Family: 3FO-3H

VEHICLE MODELS:

C C 1 0 7 0 3 + E 6 3 (EXAMPLE)

Digit 1
Selling Division

C-Chevrolet
T-GMC Truck

Digit 2
Chassis Type

C-Conventional 4x2
G-Forward Control 4x2 (Body Frame Integral)
K-Conventional 4x4
M-Forward Control 4x2 (Body Frame Integral)
P-Forward Control 4x2 (Conventional)
R-Conventional 4x2
S-S10/15 4x2
T-S10/15 4x4
V-Conventional 4x4

Digit 3
Series/GVWR Range

1-3400 to 7300 lbs
2-6400 to 8600 lbs
3-7400 to 14500 lbs

Digits 4 & 5
CA Dimension/Model Type

05-Blazer/Jimmy, Step-Van/Value Van
06-S10/15
07-42"/Pickup, Chassis-Cab
08-FC or Motor Home Chassis, Step-Van/Value Van
09-56"/Suburban, Chassis-Cab, Pickup
10-60" FC Chassis, Chevy Van/Vandura, Sportvan/Rally, Chassis-Cab, Step-Van/Value Van
11-Motor Home Chassis
13-Chevy Van/Vandura, Sportvan/Rally, Cutaway Van/Vandura Special, Hi-Cube Van/Magnavan
14-84"/FC or Motor Home, Chassis, Chassis-Cab, Step-Van/Value Van
16-Cutaway Van/Vandura Special, Hi-Cube Van/Magnavan
18-Motor Home Chassis

Digits 6 & 7
Cab or Body Style

03-Conventional Cab (S10/15, C-K, R-V Models)
-Cutaway Van/Vandura Special, Hi-Cube Van/Magnavan (G Models)
05-Chevy Van/Vandura
06-Suburban/Sportvan/Rally with Panel Rear Doors
16-Blazer/Jimmy
32-Motor Home Chassis
42-Forward Control Chassis, Step-Van/Value Van
43-Bonus Cab, Crew Cab
53-Extended Cab (S10/15 Models)

Digits 8, 9 & 10
Body Ordering Code

ZW9-Base Body
C6P-HD Chassis; 8600 lb GVWR
C7C-HD Chassis; 10500 lb GVWR
C7E-HD Chassis; 11000 lb GVWR
E31-Hi-Cube Van (10' Steel 96" Wide)
E32-Step-Van/Value Van (Steel)
E33-Step-Van/Value Van (Aluminum)
E34-Hi-Cube Van (10' Steel 82" Wide)
E36-Hi-Cube Van/Magnavan (10' Aluminum)
E37-Utility Box (Aluminum)
E38-Hi-Cube Van/Magnavan (12' Steel)
E39-Hi-Cube Van/Magnavan (12' Aluminum)
E62-Stepside/Fenderside Pickup
E63-Fleetwide/Wideside Pickup

ISSUED: 07-14-86 REV. NO.:

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS_____ MEDIUM DUTY VEHICLES_X_ GAS_____ DIESEL_____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
1	CR20903+E62	A-3	5000	16069631	17087021	17087189	25101074*
	CR20903+E63		5250				25100464**
	CR20943		6000				
	CR20906						
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				
	CG31305		5250				
	CG31306		6000				
2	CR20903+E62		5250				
	CR20903+E63						
	CR20943		6000				
	CR20906						
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				
	CG31305		5250				
	CG31306		6000				

* Front
** Rear

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES__X__ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
3	CR20903+E62		5000	16069691			
	CR20903+E63		5250				
	CR20906		6000				
	CR20943						
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				
	CG31305		5250				
	CG31306		6000				
4	CR20903+E62		5250				
	CR20903+E63						
	CR20943		6000				
	CR20906						
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				
	CG31305		5250				
	CG31306		6000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES_X_ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
5	CR20903+ZW9		8000	16069651			
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						
	CG31303+ZW9						
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						
	CG31303+E31		6500				
	CG31303+E34		6000				
	CG31303+E36						
	CG31603+E38		6500				
	CG31603+E39		6000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES_X_ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
6	CR20903+ZW9		8000				
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						
	CG31303+ZW9						
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						
	CG31303+E31		6500				
	CG31303+E34		6000				
	CG31303+E36						
	CG31603+E38		6500				
	CG31603+E39		6000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES__X__ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
7	CR20903+ZW9		8000	16069671			
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						
	CG31303+ZW9						
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						
	CG31303+E31		6500				
	CG31303+E34		6000				
	CG31303+E36						
	CG31603+E38		6500				
	CG31603+E39		6000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES_X_ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
8	CR20903+ZW9		8000				
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						
	CG31303+ZW9						
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						
	CG31303+E31		6500				
	CG31303+E34		6000				
	CG31303+E36						
	CG31603+E38		6500				
	CG31603+E39		6000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES__X__ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
9	CR20903+E62	M-4	5250	16069621	17087257		
	CR20903+E63						
	CR20943		6000				
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				
10	CR20903+E62		5250				
	CR20903+E63						
	CR20943		6000				
	CR30903+E62		5500				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63						
	CV30943		7000				
11	CR20903+E62		5250				
	CR20903+E63						
	CR20943		6000				
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES__X__ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
12	CR20903+E62		5250				
	CR20903+E63						
	CR20943		6000				
	CR30903+E62		5500				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63						
	CV30943		7000				
13	CR20903+ZW9		8000	16069641			
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES__X__ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
14	CR20903+ZW9		8000				
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						
15	CR20903+ZW9			16069681			
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S

(For CARB Use Only)

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS____ MEDIUM DUTY VEHICLES__X__ GAS____ DIESEL____

Manufacturer: General Motors Corporation Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 (HGC7.4T5HAC3) Exhaust Emission Control System: AIP/EGR/TWC/OC/CL ~~(EFI)~~ CFI

Liter (CID): 7.4 (454) Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
16	CR20903+ZW9		8000				
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 07-14-86

0109S