State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-87

Relating to Certification of New Heavy-Duty Engines and Vehicles

DETROIT DIESEL CORPORATION

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and Detroit Diesel Corporation and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following 2000 model-year Detroit Diesel Corporation diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle-weight-rating (GVWR) over 14,000 pounds:

Fuel Type: Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG)

Engine Family	Displacement <u>Liters Cubic Inches</u>	Exhaust Emission Control Systems and Special Features
YDDXH12.7FGF (Series 60G)	12.7 775	Turbocharger Charge Air Cooler Electronic Control Module

The engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP") for Heavy-Duty Diesel Engines (Title 13, California Code of Regulations, Section 1956.8):

	Non-Methane	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	Oxides	<u>Matter</u>
"FTP"	1.2	15.5	4.0	0.05

BE IT FURTHER RESOLVED: That the following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

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	Non-Methane	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"FTP"	0.8	2.0	2.0	0.02

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That the listed engine models are certified for use in urban buses.

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

- 1. The Settlement Agreement is in effect.
- 2. The manufacturer is in compliance with all applicable certification requirements of the Settlement Agreement.

Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

Executive Order A-290-81 dated December 30, 1999 is hereby superseded by Executive Order A-290-87.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this _______day of January 2000.

R. B. Summerfield, Chief

Mobile Source Operations Division

EO: A-290-87

Process Code: New Submission... Manufacturer: Detroit Diesel Corporation.

EPA Engine Family: YDDXH12,7FGF

2.Engine Model

1.Engine Code

957 961

4.Fuel Rate: 3.BHP@RPM (SAE Gross)

Manufacturer Family Name: mm/stroke @ peak HP (for diesel only)

5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)

6.Torque @ RPM (SEA Gross)

1400@1200 1400@1200

116.6 116.6

330@2100 330@2100

CNG

7.Fuel Rate: mm/stroke@peak torque

Series 60G

(lbs/hr)@peak torque Device Per SAE J1930 8.Fuel Rate:

103.0 103.0

ECM TCCAC

9.Emission Control