State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-89

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 engine and emission control system produced by the manufacturer are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Model Year: 2001

Fuel Type: Diesel

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
1DDXH08.5FJY (Series 50 Bus-EGR)	8.5	519	Turbocharger Charge Air Cooler Electronic Control Module Oxidation Catalytic Converter Exhaust Gas Recirculation Direct Diesel Injection

Engine models and codes are listed on attachments.

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

Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
1.3	15.5	4.0	0.05

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the following emission standards, in grams per brake horsepower-hour, under the EURO III tests in the Settlement Agreement, and a "Not-to-Exceed" nitrogen oxides emission standard of 7.0 grams per brake horsepower-hour:

Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
1.3	15.5	6.0	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:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"FTP"	0.02	0.6	3.9	0.05
"EURO III"	0.01	0.2	3.6	0.03

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.
3. Pursuant to Paragraph 16 of the Settlement Agreement, no more than 2,000 light heavy-duty, medium heavy-duty and urban bus engines produced by the manufacturer between July 31,1999 and October 1, 2002 ("Exclusion Engines") shall be subject to the aforementioned emission standards, including the "Not-to-Exceed" nitrogen oxides emission standard, under the EURO III tests.

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.

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

Executed at El Monte, California this 18th day of May 2000.

R. B. Summerfield, Chief
Mobile Source Operations Division

ATTACHMENT

LARGE ENGINE MODEL SUMMARY

4/14/00

Manufacturer: **Detroit Diesel Corporation**

Process Code: **New Submission**

A-290-89

EPA Engine Family: **1DDXH08.5FJY**

Manufacturer Family Name: **Series 50 Bus-EGR**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
Diesel Fuel #2 1222	S50 Bus EGR	275@2100	212.0	98.7	890@1200	247.6	65.9	DI, ECM, EGR TC, CAC Catalyst (oc)
Diesel Fuel #1 1221	S50 Bus EGR	275@2100	230.9	102.6	890@1200	260.0	66.5	DI, ECM, EGR TC, CAC Catalyst (oc)