State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-180

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CUMMINS ENGINE COMPANY, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

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

IT IS ORDERED AND RESOLVED: That the following Cummins Engine Company, Inc. 1997 model 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 or Liquid Natural Gas (CNG or LNG)

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
VCE359D1CARA (493C)	5.9	359	Charge Air Cooler Turbocharger Powertrain Control Module Heated Oxygen Sensor

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake-horsepower-hour:

Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.2	15.5	5.0	0.10

The following are the certification exhaust emission values for this engine family in grams per brake-horsepower-hour:

Engine Family	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
VCE359D1CARA (493C)	1.2	8.5	1.5	0.07

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, Section 2035 et seq.).

Engines 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 attachments.

Executed at El Monte, California this 23rd day of December 1996.

John Kowalski Jr

R. B. Summerfield, Chief
Mobile Source Operations Division

E.O.# A-21-180

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer Cummins Engine Company, Inc. Engine Family (493C) VCE359D1CARA

Displacement: / 5.9 Liters / 359 Cubic Inches

Maximum Rated Power: 195 HP @ 2800 RPM Engine Configuration: I-6

Ignition: Compression_ Compression with Glow Plug_ Spark X

Fuel Type(s): Dedicated_ Flex-Fuel_ Dual-Fuel_ Diesel_ M100_ M85_

CNG X LNG X LPG_ Other (specify)_____

Diesel Cert Fuel: 13 CCR 2282_ 40 CFR 86.1313-90_ 40 CFR 86.1313-94_

Primary Intended Service Class: LHD_ MHD X HHD_ Urban Bus_

Exhaust ECS (include.MFI, TC, CAC): PCM HO2S, TC, CAC

(use abbreviations per SAE J1930 SEP91)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
B5.9-195G (2035) (2183)	195 @ 2800	(70)	N/A	3922724 3930507	N/A	N/A
B5.9-150G (2162)	150 @ 2500	(57)	N/A	3922724 3930507	N/A	N/A

Date issued:

Revisions:

SUBMITTED
NOV 08 1996