State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-94

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-45-3;

IT IS ORDERED AND RESOLVED: That the following Cummins Engine Company, Inc. 1993 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Fuel Type: Diesel

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
PCE0505FDA5	8.3	505	Oxidation Catalytic Converter Charge Air Cooler Turbocharger

Engine models and codes are listed on attachments.

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

Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.3	15.5	5.0	0.10

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

Engine Family	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
PCE0505FDA5	0.2	0.9	4.7	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.).

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

BE IT FURTHER RESOLVED: That the listed engine family is certified for use in urban buses at the request of Cummins Engine ~~Compa~~any, Inc. based on the assumption that the "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" will be amended to allow the certification of 1993 model urban bus engines on a low-sulfur (0.05% sulfur) certification diesel fuel having specifications substantially similar to the specifications of the diesel fuel used to certify the listed urban bus engine family. The Air Resources Board approved such amendments at a hearing conducted December 10, 1992. The certification of the listed engine family as urban bus is **CONDITIONAL** on such amendments becoming effective by December 1, 1993. If such amendments do not become effective by December 1, 1993, the listed engine family shall be deemed certified to the heavy-duty diesel engine standards as set forth in section 1956.8 (a)(1)(A) of the Title 13, California Code of Regulations (For non-urban bus engines: 1.3 g/BHp-Hr total hydrocarbons, 15.5 g/BHp-Hr carbon monoxide, 5.0 g/BHp-Hr oxides of nitrogen, and 0.25 g/BHp-Hr particulates). Also, if such amendments do not become effective by December 1, 1993, the listed engine family shall be deemed as a non-certified engine family and shall be subject to Section 43154 of the Health and Safety Code.

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 2nd day of September, 1993.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer: Cummins Engine Company, Inc. Engine Family: 413D PCE0505FDA5

Liter (CID): 8.3 (505) Fuel Type: Diesel Engine Config.: I-6

Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) OC (TC, CAC)
(Use abbreviations per SAE J1930 May 91)

Engine Model (Eng. Code)	Advertised HP @ RPM	Fuel Rate @ Rated HP mm^3 /stroke (lbs/hr)	Fuel Pump and Injector(1) P/N	ECM/PCM P/N	Part.Trap/ Catalyst P/N
C8.3-275 (1658)	275 @ 1800	156 (94.5)	3922446	NA	3922906 3925182 3926265
C8.3-275 (1658)	275 @ 2000	146 (98.7)	3922427	NA	3922906 3925182 3926265
C8.3-250 (1658)	250 @ 2000	132 (88.9)	3922449	NA	3922906 3925182 3926265

Revisions:

SUBMITTED
JUN 30 1993