State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-201

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. 1998 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: Liquefied Petroleum Gas (LPG)

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
WCEXH0359BAL (493F)	5.9	(359)	Charge Air Cooler Turbocharger Powertrain Control Module Heated Oxygen Sensor Oxidation Catalytic Converter

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:

Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.3	15.5	2.5	0.10

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

Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
0.8	1.0	2.3	0.01

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 models are certified to the optional lower-emission NOx standards pursuant to the California Code of Regulations, Title 13, Section 1956.8(a)(1) and the incorporated "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles", adopted April 8, 1985, as last amended June 29, 1995.

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 17th day of February 1998.

R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

8/27/97

Manufacturer: Cummins Engine Company

Process Code: New Submission

EPA Engine Family: WCEXH0359BAL

Manufacturer Family Name: 493F

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
CPL 2171 CPL 2439 FR 90219	B5.9-195LPG	195 @ 2600	na	na	420 @ 1600	na	na	H2OS, PCM, OC CAC, TC

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