State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-251
Relating to Certification of New Medium-duty Engines and Vehicles

CUMMINS ENGINE COMPANY, INC.

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 Cummins Engine Company, Inc. and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following 2000 model-year Cummins Engine Company, Inc. diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) of 8,501 to 14,000 pounds:

Fuel Type: Diesel

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
YCEXA0359BAZ (403Z)	5.9	359	Turbocharger Charge Air Cooler Powertrain 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 Hydrocarbons plus Nitrogen Oxides	Carbon Monoxide	Particulate Matter
"FTP"	3.9	14.4	0.10

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 5.0 grams per brake horsepower-hour:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"EURO III"	1.3	15.5	4.0	0.10

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	Nitrogen Oxides	NMHC + NOx	Carbon Monoxide	Particulate Matter
"FTP"	n/a	n/a	3.7	0.1	0.08
"EURO III"	0.03	3.6	n/a	0.3	0.06

BE IT FURTHER RESOLVED: That the listed engine models are certified to the optional standards and test procedures applicable to incomplete and diesel medium-duty vehicles pursuant to Title 13, California Code of Regulations, Section 1956.8(g).

BE IT FURTHER RESOLVED: That the listed engine models and vehicle models will be subject to the in-use compliance provisions applicable to 1995 and subsequent model-year medium-duty vehicles set forth in Title 13, California Code of Regulations, Section 2139(c).

BE IT FURTHER RESOLVED: That the listed engine models also comply with "California Motor Vehicle Emission-Control and Smog-Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed engine models comply with the on-board diagnostic system requirements for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1 ("Malfunction- and Diagnostic-System Requirements—1994 and Subsequent Model-Year Passenger-Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines").

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 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.

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

Executed at El Monte, California this 9th day of September 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **Cummins Engine Company, Inc.**

Engine category: **On-highway HDDE**

EPA Engine Family: **YCEXA0359BAZ**

Mfr Family Name: **403Z**

Process Code: **New Submission**

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
2495;FR90425	ISB 245	245@2700	107	97.5	505@1600	97.7	52.7	PCM, TC, CAC
2497;FR90427	ISB 235	235@2700	103	93.5	460@1600	89	48.2	PCM, TC, CAC
2866;FR90430	ISB 235	235@2700	103	93.5	460@1600	89	48.2	PCM, TC, CAC

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