State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-227

Relating to Certification of New Heavy-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 1999 model-year Cummins Engine Company, Inc. diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle-weight-rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
XCEXH0359BAK (403Q)	5.9	359	Turbocharger Charge Air Cooler Electronic 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):

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"FTP"	1.3	15.5	4.0	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 7.0 grams per brake horsepower-hour:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"EURO III"	1.3	15.5	6.0	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	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"FTP"	0.1	1.0	3.7	0.09
"EURO III"	0.04	0.2	4.8	0.05

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 Settlement Agreement has not become null and void under Settlement Agreement Paragraph 165.
3. Cummins Engine Co., Inc. is in compliance with all applicable certification requirements of the Settlement Agreement.

Engines produced on or after July 31, 1999 are not covered by this Executive Order.

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 21st day of December 1998.

John Kowalski for

R. B. Summerfield, Chief
Mobile Source Operations Division

10/7/98

LARGE ENGINE MODEL SUMMARY

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

Process Code: **New Submission**

EPA Engine Family: **XCEXH0359BAK**

Manufacturer Family Name: **403Q**

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
CPL2573								
FR90133	ISB 250	263@2300	121	94	660@1600	123	66	ECM, TC-CAC
CPL2572								
FR90238	ISB 230	242@2300	108	84	660@1600	123	66	ECM, TC, CAC
FR90099	ISB 230	242@2300	108	84	605@1600	115	62	ECM, TC, CAC
CPL2571								
FR90237	ISB 215	219@2400	96	78	605@1600	115	62	ECM, TC, CAC
FR90100	ISB 215	219@2400	96	78	520@1600	96	52	ECM, TC, CAC
FR90151	ISB 210	215@2400	94	76	520@1400	100	47	ECM, TC, CAC
CPL2570								
FR90236	ISB 195	201@2400	89	72	520@1600	96	52	ECM, TC, CAC
FR90150	ISB 190	195@2400	86	70	520@1400	100	47	ECM, TC, CAC
CPL2569								
FR90101	ISB 175	180@2400	80	65	420@1600	78	42	ECM TC, CAC

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