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State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-242

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	Disp]	lacement	Exhaust Emission Control
	<u>Liters</u>	<u>Cubic Inches</u>	Systems and Special Features
XCEXH0661MAC (353L)	10.8	661	Turbocharger Charge Air Cooler Electronic Control Module Oxidation Catalytic Converter

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	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"FTP"	1.3	15.5	4.0	0.05

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 <u>Monoxide</u>	Nitrogen _Oxides	Particulate <u>Matter</u>
"FTP"	0.1	0.3	4.0	0.04
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CUMMINS ENGINE COMPANY, INC.

BE IT FURTHER RESOLVED: That pursuant to Paragraph 14 of the Settlement Agreement the requirements of Subparagraphs (b) through (d) of that Paragraph do not apply to up to 400 Cummins M11 LMB engines, and therefore the requirements of Subparagraphs (b) through (d) do not apply to the aforementioned engine family.

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 listed engine models are certified for use in urban buses.

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.
- 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 _2____day of December 1998.

R.) B. Summerfield, Chief Mobile Spurce Operations Division

11/20/98	
LARGE ENGINE MODC. SUMMARY	Manufacturer: Cummins Engine Company, Inc. Process Code: New Submission
	Manufacturer:

XCEXH0661MAC	
EPA Engine Family:	

Manufacturer Family Name: 353L

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8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1330	CFL2425 FR2610 M11-330E+ 330@2100 161 114 1040@1200 183 74 ECMJTC,UNC, GC + FR2609 M11-280E+ 280@2100 133 94 900@1200 161 65 ECM TC CAL VC
8.Fuel Rate: (lbs/hr)@peak torq	74 65
7.Fuel Rate: mm/stroke@peak torque	183 161
6.Torque @ RPM (SEA Gross)	1040@1200 900@1200
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	114 94
 Fuel Rate: mm/stroke @ peak HP (for diesel only) 	2420 R2610 M11-330E+ 330@2100 161 114 1040@1200 183 R2609 M11-280E+ 280@2100 133 94 900@1200 161
3.BHP@RPM (SAE Gross)	330@2100 280@2100
1.Engine Code 2.Engine Model	M11-330E+ M11-280E+
1.Engine Code	CPL2425 FR2610

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