State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-143-1

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CATERPILLAR, 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 Caterpillar, Inc. and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following engine and emission control system produced by the manufacturer are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Model Year: 2001

Fuel Type: Diesel

Engine Family		lacement <u>Cubic Inches</u>	Exhaust Emission Control Systems and Special Features
1CPXH0442HBK	7.2	442	Turbocharger Charge Air Cooler Electronic Control Module Oxidation Catalytic Converter Direct Diesel Injection

Engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards or family emission limits (FELs), as applicable, (Title 13, California Code of Regulations, Section 1956.8) and certification exhaust emission values for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP"):

	Total <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	Particulate <u>Matter</u>
Standards	1.3	15.5	4.0	0.10
Family Emission Limit	n/a	n/a	3.5	n/a
Certification	0.3	1.2	3.1	0.09

BE IT FURTHER RESOLVED: That the above-described certification is subject to the following terms, limitations and conditions:

The above family emission limit(s) (FELs) is an emission level declared by the manufacturer to serve for the averaging, banking and trading program and in lieu of an emission standard for certification. It represents the emission standard applicable to this engine family that must be applied when determining compliance of any model within this engine family or compliance with the corporate average standard(s).

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the emission standards, including a "Not-to-Exceed" nitrogen oxides emission standard of 4.4 grams per brake horsepower-hour, under the EURO III tests in the Settlement Agreement. The following are the certification exhaust emission standards and certification exhaust emission values for this engine family in grams per brake horsepower-hour under the EURO III tests:

	Total	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
Standard	1.3	15.5	3.5	0.10
Certification	0.1	0.3	3.1	0.06

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.

Executive Order A-13-143 dated February 9, 2001 is hereby superseded by Executive Order A-13-143-1.

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

Executed at El Monte, California this

R. B. Summerfield, Chief

Mobile Source Operations Division

day of May 2001.

ATTOHMENT

Engine Model Symmary Form

Manufacturer: Caterpillar Inc.

Engine category: On-highway MHDD EPA Engine Famiy: 1CPXH0442HBK

Mfr Family Name: NA

Process Code: New Submission

A-13-143-1

Cert Eng 3126 330 @ 2400 145 116.9 860 @ 1440 163 79.0 EM, DI, TC, ECM, TC, AECM, TC, A	1.Engine Code	1.Engine Code 2.Engine Model	3.BHP@RPM (SAE Gross)	4.ruel Rate: mm/stroke @ peak HP (for diesel only)	o.Fuel Kalę: (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	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930
330 @ 2400 147 118.4 860 @ 1440 163 79.1 300 @ 2200 145 107.5 860 @ 1440 162 78.4 300 @ 2200 145 107.5 800 @ 1440 151 73.0 275 @ 2200 132 97.4 860 @ 1440 152 73.6 275 @ 2200 124 91.4 800 @ 1440 151 73.0 250 @ 2200 124 91.4 800 @ 1440 128 61.9 81.9 250 @ 2200 124 91.4 660 @ 1440 128 61.9 81.9 230 @ 2200 115 85.2 660 @ 1440 126 61.1 81.4 210 @ 2200 102 75.7 520 @ 1440 105 50.9 81.4 216 @ 2400 101 81.4 520 @ 1440 103 50.1 82.0 207 @ 2300 98 75.8 520 @ 1440 103 50.1 89 175 @ 2200 89 65.5 420 @ 1440 85 41	Cert Eng	3126	330 @ 2400	145	116.9	860 @ 1440	163	79.0	EM DI TO EOM
300 @ 2200 145 107.5 860 @ 1440 162 78.4 18.3 300 @ 2200 145 107.5 800 @ 1440 162 78.7 17.3 275 @ 2200 132 97.4 860 @ 1440 162 78.7 17.3 275 @ 2200 132 97.4 800 @ 1440 152 73.0 17.3 250 @ 2200 124 91.4 800 @ 1440 151 73.0 17.3 250 @ 2200 124 91.4 660 @ 1440 128 61.9 17.8 61.9 17.8 61.9 17.8 61.1 17.8 61.1 17.8 61.1 17.8 61.1 17.4 <t< td=""><td>•</td><td>3126</td><td>330 @ 2400</td><td>147</td><td>118 /</td><td>060 @ 4440</td><td>2 5</td><td>0.0</td><td></td></t<>	•	3126	330 @ 2400	147	118 /	060 @ 4440	2 5	0.0	
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POTITY URC, OC, ECM