State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-27-79

Relating to Certification of New Heavy-Duty Engines and Vehicles

MACK TRUCKS, 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 Mack Trucks, Inc. and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following 2000 model-year Mack Trucks, 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
YMKXH11.9E56 (56)	11.9	728	Turbocharger Charge Air Cooler Electronic Control Module Smoke Puff Limiter

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	5.8	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, except that compliance with the carbon monoxide exhaust emission standard has been demonstrated pursuant to Title 40, Code of Federal Regulations, Part 86, Subpart A, Section 86.091-23(c)(2)(i):

	Total Hydrocarbons	Nitrogen Oxides	Particulate Matter
"FTP"	0.1	3.8	0.07
"EURO III"	0.04	5.4	0.02

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.
3. Mack Trucks, Inc. 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 7 day of December 1999.

John Gundersen for
R. B. Summerfield, Chief
Mobile Source Operations Division

11/9/99

LARGE ENGINE MODEL SUMMARY

E.O.: A-27-79

Manufacturer: **Mack Trucks, Inc.**

Process Code: **New Submission**

EPA Engine Family: **YMKXH11.9H56**

Manufacturer Family Name: **FAMILY 56**

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
N/A	E7-460XT	487 @ 1800	267.7	167.6	1760 @ 1200	319.1	133.2	EM,EC,TC,CAC, DI,SPL
N/A	E7-460	487 @ 1800	267.7	167.6	1660 @ 1200	295.2	123.2	SAME AS ABOVE
N/A	E7-427	427 @ 1800	225.7	141.3	1560 @ 1200	278.9	116.4	SAME AS ABOVE
N/A	E7-400	400 @ 1800	215.9	135.2	1460 @ 1200	260.7	108.8	SAME AS ABOVE
N/A	E7-355/380	355 @ 1800	187.5	117.4	1560 @ 1100	281.0	107.5	SAME AS ABOVE
N/A	E7-350	350 @ 1800	185.4	116.1	1360 @ 1200	240.3	100.3	SAME AS ABOVE
N/A	E7-330/350	350 @ 1800	174.4	109.2	1460 @ 1100	261.4	100.0	SAME AS ABOVE
N/A	E7-310/330	310 @ 1800			1360 @ 1100			SAME AS ABOVE
N/A	E7-310/330	310 @ 1700			1360 @ 1100			SAME AS ABOVE
N/A	E7-300	300 @ 1950			1160 @ 1200			SAME AS ABOVE
N/A	E7-300	300 @ 1800			1160 @ 1200			SAME AS ABOVE
N/A	E7-300	300 @ 1700			1160 @ 1200			SAME AS ABOVE
N/A	EM7-300	318 @ 1750	176.0	107.10	1460 @ 1020	265.8	94.3	SAME AS ABOVE
N/A	EM7-275	292 @ 1750			1360 @ 1020			SAME AS ABOVE

ECM, TC, CAC
SPL