State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-7-30

Relating to Certification of New Heavy-Duty
Off-Road Equipment Engines

DETROIT DIESEL CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Detroit Diesel Corporation 1999 model-year engines with rated power between 175 and 750 horsepower and exhaust emission control systems are certified as described below in heavy-duty off-road equipment:

Typical Equipment Usage: Crane, Loader, Tractor, Dozer, Pump, Compressor, and Generator Set

Fuel Type: Diesel

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
XDDXL12.1TFM (V-92TA)	9.0/12.1	549/739	Charge Air Cooler Turbocharger

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), oxides of nitrogen (NOx), and particulate matter (PM) certification exhaust emission standards in grams per brake horsepower-hour (g/bhp-hr), and the opacity-of-smoke emission standards in percent (%) during acceleration (Accel), lugging (Lug), and peak (Peak) modes for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

Exhaust Emissions (g/bhp-hr)				Smoke Opacity (%)		
THC	CO	NOx	PM	Accel	Lug	Peak
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx, and PM exhaust emissions certification values in grams per brake horsepower-hour, and the opacity-of-smoke emissions certification values in percent for this engine family are:

Exhaust Emissions (g/bhp-hr)				Smoke Opacity (%)		
THC	CO	NOx	PM	Accel	Lug	Peak
0.4	0.8	6.7	0.1	18	3	28

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

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 2425 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 23rd day of December 1998.

R. B. Summerfield, Chief
Mobile Source Operations Division

A15

LARGE ENGINE MODEL SUMMARY

Manufacturer: **Detroit Diesel Corporation** Process Code: **New Submission**

EPA Engine Family: **XDDXL12.1TFM** Manufacturer Family Name: **V-92TA**

Engine Code	Engine Model	BHP@RPM (SAE Gross)	Fuel Rate: mm/stroke @ peak HP (for diesel only)	Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	Torque @ RPM (SEA Gross)	Fuel Rate: mm/stroke@peak torque	Fuel Rate: (lbs/hr)@peak torque	Emission Control Device Per SAE J1930
9G95	6V-92TA	380 @ 2300	98.3	149.3	1090 @ 1200	113.7	87.9	TC, CAC
9G95	6V-92TA	360 @ 2100	98.9	136.8	1090 @ 1200	113.7	87.9	TC, CAC
9G90	6V-92TA	340 @ 2100	94.2	129.9	1015 @ 1200	104.6	82.1	TC, CAC
9G95	8V-92TA	490 @ 2300	96.2	196.1	1450 @ 1200	111.7	118.9	TC, CAC
9G95	8V-92TA	480 @ 2100	98.6	183.4	1450 @ 1200	111.7	118.9	TC, CAC
9G90	8V-92TA	450 @ 2100	91.2	168.7	1330 @ 1200	102.2	108.0	TC, CAC
9G85	8V-92TA	425 @ 2100	87.4	161.6	1250 @ 1200	97.7	103.3	TC, CAC
6750	8V-92TA	490 @ 2100	103.1	192.1	1400 @ 1500	111.0	147.7	TC, CAC