

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER B-57
Relating to Conversion of Vehicles to Gaseous Fuels

CLEAN AIR POWER

Pursuant to the authority vested in the Air Resources Board by Section 43004 and Section 43006 of the Health and Safety Code and Section 10753(d) of the Revenue and Taxation Code; and

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

IT IS ORDERED AND RESOLVED: That the bi-fuel 14.6L Compressed Natural Gas (CNG)/Diesel Fuel System and the Liquefied Natural Gas (LNG)/Diesel Fuel System manufactured by Clean Air Power (CAP) of 13615 Stowe Drive, Poway, California 92064, is certified as described below for the following 1998 model-year heavy-duty Caterpillar C-15 diesel engine:

Fuel Type: Compressed Natural Gas (CNG)/Diesel
Liquefied Natural Gas (LNG)/Diesel

Engine Family: WCPXH0893ERK Displacement: 14.6L (893 cubic inches)

Retrofit System Components:

<u>Component</u>	<u>Part Number</u>	<u>Description</u>
Injector block	620558-1	CNG/LNG fuel injection assembly
Valve assembly	619260-1	CNG/LNG fuel injection assembly
CNG/LNG injectors	619625-1	CNG/LNG fuel injectors (6)
Valve manifold assembly	619733-1	Wastegate

<u>Component</u>	<u>Part Number</u>	<u>Description</u>
TAB final assembly	619669-1	Turbocharger air bypass control valve
Regulator (modified)	620730-1	LNG fuel management module
Regulator (12VDC)	905413-1	CNG fuel management module
Regulator (24VDC)	905413-2	CNG fuel management module
CNG/LNG fuel filter assembly	616190-1	CNG/LNG fuel filter between regulator and injector blocks
Speed buffer box assembly	607486-1	Camshaft sensor signal processor
ECU final assembly	620336-12	Electronic control unit with Clean Air Powers PROM specific to horsepower and LNG or CNG
Engine wiring harness assembly	607936-1	Wiring harness
ADEM interface harness assembly	607858-1	Wiring harness

All emission control systems and the manufacturer's tune-up label shall be retained. The engine shall be adjusted to CAP's tune-up specifications. The production retrofit systems shall be in all material respect the same as those for which certification is granted.

The following are the new engine emission standards in grams per brake horsepower hour:

<u>Gross Vehicle Weight Rating (lbs.)</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
over 14,000	1.3	15.5	4.0	0.10

The following are Clean Air Power's certification emission values for the Bi-Fuel CNG/Diesel Fuel System and LNG/Diesel Fuel System in grams per brake horsepower-hour:

	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
CNG/Diesel and LNG/Diesel:	0.6	2.5	3.4	0.08
Diesel	0.09	1.0	3.6	0.08

BE IT FURTHER RESOLVED: That the retrofit system is not being certified to credit-generating emission standards as described in Sections 5 and 6 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems For Motor Vehicles Certified for 1994 and Subsequent Model Year and for All Model Year Motor Vehicle Retrofit Systems Certified for Emission Reduction Credit".

BE IT FURTHER RESOLVED: That the retrofit system manufacturer may be subjected to in-use enforcement emissions testing as described in Section 8 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems For Motor Vehicles Certified for 1994 and Subsequent Model Year and for All Model Year Motor Vehicle Retrofit Systems Certified for Emission Reduction Credit".

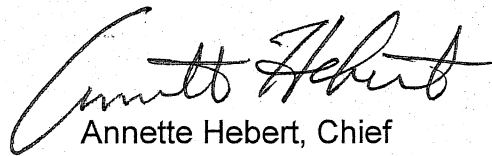
BE IT FURTHER RESOLVED: That the retrofit system manufacturer shall provide a supplemental emission control information label, which shall be affixed in a permanent manner located adjacent to the original Emission Control Information Label, and shall comply with the labeling requirements described in Section 3, (b), of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems For Motor Vehicles Certified for 1994 and Subsequent Model Year and for All Model Year Motor Vehicle Retrofit Systems Certified for Emission Reduction Credit".

BE IT FURTHER RESOLVED: That the manufacturer has submitted and the Executive Officer hereby approves the materials required to demonstrate certification compliance with the warranty requirements under Section 9, of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems For Motor Vehicles Certified for 1994 and Subsequent Model Year and for All Model Year Motor Vehicle Retrofit Systems Certified for Emission Reduction Credit".

The engine family retrofit system certified under this Executive Order must conform to all applicable California emission regulations. Certification of the retrofit system shall not be construed as a certification to sell, offer for sale, or advertise any component of the retrofit system as an individually certified part.

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

Executed at El Monte, California this 4 day of April 2012.



Annette Hebert, Chief
Mobile Source Operations Division