State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER B-62-1

Relating to Conversion of Engines to Alternative Fuels

AMERICAN POWER GROUP

Pursuant to the authority vested in the Air Resources Board by Sections 43004 and 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 Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: The bi-fuel compressed natural gas/diesel (CNG/diesel) and liquefied natural gas/diesel (LNG/diesel) retrofit system, manufactured by American Power Group (APG) of 2503 East Poplar Street, Algona, Iowa 50611, is certified as described below for the following 2010 model-year Volvo Powertrain Corporation 12.8L Heavy Heavy-Duty Diesel Engine.

Fuel Type: Diesel to bi-fuel CNG/diesel or LNG/diesel

Engine Family: AVPTH12.8S01 Displacement: 12.8 liter

Engine Models: MP8-505C, D13H-500, D13H-475, D13H-435, D13H-425, D13H-405, D13H-375, D13H-500P, D13H-435P, MP8-500C, MP8-415C, MP8-500M, MP8-425M, MP8-505E, MP8-445E, MP8-415E, MP8-505M

Major Retrofit System Components:

Component	Part Number
High Pressure Shutoff Valve	100603
High Pressure Regulator	100618
Low Pressure Shutoff Valve	102235
Low Pressure Regulator	102111
Electronic Throttle Body	101120
Venturi Mixer Tube Assembly	101569
Venturi Sleeve	101254
Low vacuum Sensor	101254
Electronic Control Module	101398
Remote Display Unit	102114
Dedicated Wiring Harness	101763
	101764
	101808

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

The certification exhaust emission standards for this engine family in grams per brake horsepower-hour are:

FTP and SET Emissions Standards (g/bhp.hr)	NMHC	NOx	CO	PM
HDDE @ 10 Years/435,000 Miles/22,000 hrs	0.14	0.20	15.5	0.01

The certification exhaust emission values for this engine family with the diesel and bi-fuel CNG/diesel or bi-fuel LNG/diesel retrofit system in grams per brake horsepower-hour are:

Certification Levels (g/bhp.hr) @ 10 Years or 435,000 Miles or 22,000 hrs		NMHC	NOx	CO	PM
CNG/Diesel or LNG/Diesel	FTP	0.002	0.20	6.1	0.001
	SET	0.0004	0.18	0.1	0.0003
Diesel	FTP	0.01	0.11	*	0.0003
	SET	0.006	0.10	*	0.0001

BE IT FURTHER RESOLVED: The retrofit system manufacturer has submitted and the Executive Officer hereby approves the materials in the application to demonstrate certification compliance with the emission standards set forth in Section 4 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer has submitted and the Executive Officer hereby approves the materials in the application to demonstrate certification compliance with the on-board diagnostic system requirements in Section 6 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer shall provide a supplemental emission control information label, which shall be affixed in a permanent manner adjacent to the original Vehicle Emission Control Information label, and shall comply with the labeling requirements described in Section 3(e) of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer has submitted and the Executive Officer hereby approves the materials required to demonstrate certification

compliance with the warranty requirements, including warranty notification under Sections 3(f)(5) , 3(g), and 9 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer may be subject to in-use enforcement emission testing as described in Section 12 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer shall maintain a record of each engine on which the retrofit system is installed as required in Section 3(h) of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines." The manufacturer shall supply a copy of installation information upon request and annually report the annual sales by March 1 of the following calendar year.

The 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 Executive Order.

Executed at El Monte, California on this 17th day of June 2015.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division