### State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER A-326-4

# Relating to Certification of New Heavy-Duty Engines and Vehicles

## POWER SYSTEMS ASSOCIATES

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 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 1997 model-year Power Systems Associates diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

<u>Fuel Type:</u> Diesel [dedicated] or Diesel + Compressed Natural Gas (CNG) [bifueled] or Diesel + Liquefied Natural Gas (LNG) [bi-fueled]

<u>Engine Family</u>		Displacement (Cubic Inches)	Exhaust Emission Control Systems and Special Features		
VPS442DZJARK	7.1	(442)	Turbocharger Charge Air Cooler Engine Control Module (Diesel) Engine Control Module (CNG/LNG)		

Engine model codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour: (The standards for diesel + CNG/LNG bi-fuel are in the parentheses.)

Total (Non-Methane)	Carbon	Nitrogen	<u>Particulates</u>
Hydrocarbons	<u>Monoxide</u>	Oxides	
1.3 (1.2)	15.5 (15.5)	5.0 (5.0)	0.10 (0.10)

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour: (The values in parentheses are the certification exhaust emission values for diesel + CNG/LNG bi-fuel.)

Engine	Total (Non-Methane)	Carbon	Nitrogen	<u>Particulates</u>
Family	Hydrocarbons	<u>Monoxide</u>	Oxides	
VPS442DZJARK	0.9 (0.9)	1.5 (7.8)	4.7 (2.8)	0.09 (0.08)

### POWER SYSTEMS ASSOCIATES

ī,

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, Section 2035 et seq.).

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

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

Executed at El Monte, California this 5 day of Janpary 1998.

R. B. Summerfield, Chief Mobile Source Operations Division

	. [	DEC-24-199	7 12:18	L	, POWER	SYSTE	EMS ASSO	CS		562 699 8614	P.08/26
		Emiss, Device Ecm(Diesel)	RM(CNG/LNC) EC, DI, TC, CAC EC, DI, TC, CAC						•		
	326-4	Fuel Rate lb/hr	8.8d/61.2NG 7.4d/46.9NG								
	E0: A-	Fuel Rate mm/stroke	19,0d/110.6NG 16.0d/84.9NG								
		Torque @ RPM	660 @ 1440 520 @ 1440							• • •	
	442D23 2K	te Rated Fuel Rate ike 1h/hr	.0NG 10.24/100.0NG					,			·
~~~ / / ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	VPS	Fuel Rate um/strnke	19.0d/140.0NG 16.0d/107.0NG								
•	FAMILY:	BHPORPM	250 @ 2200 190 @ 2200								
	ENGINE FAMI	Engine Model	31266 31266				· · ·			· · ·	·
		C. California Codes Engine Code	2						,	· ·	