Joseph J.

California Environmental Protection Agency AIR RESOURCES BOARD	REWACO-TRIKES, LLC.	EXECUTIVE ORDER M-51-1 New On-Road Motorcycles

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

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

IT IS ORDERED AND RESOLVED: That the following 2001 model-year engine and emission control systems (ECS) produced by the manufacturer are certified as described below for four-stroke gasoline-powered motorcycles:

Engine Family	Evaporative Family	Displacement (cm^3)	Class	ECS & Special Features
1RTLC01.6RWC	1RTLE0051RWC	1584	III	EM

Vehicle Models (Equivalent Inertia Mass): HS4 Chopper A2S, HS4 Chopper A2H (each 560 kg)
HS5 Family A2S, HS5 Family A2H (each 570 kg)

Production motorcycles shall be in all material respects the same as those for which certification is granted.

The exhaust emission standards and certification values in grams per kilometer for hydrocarbons (HC) and carbon monoxide (CO), and the HC evaporative (Evap) standard and certification value in grams per test for this engine/evaporative family are as follows:

	HC	CO	Evap HC
Standard: (Effective Standard)	1.4	12	2.0 (1.8)
Certification:	1.1	7	1.8

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That because the listed motorcycles are certified to 0.2 grams per test or more below the applicable evaporative emission standard, the vehicles are exempt from complying with the Air Resources Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" pursuant to Executive Order G-70-16-E.

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

Executed at El Monte, California this 21st day of February 2001.

R. B. Summerfield, Chief
Mobile Source Operations Division

Motorcycle Engine Family Information Form

1. Manufacturer: Rewaco-Trikes llc.
2. Certification Contact Person, address, phone, and fax:

Hanspeter Dubach Rewaco-Trikes llc. 8585 Commerce Ave # A San Diego, CA 92121	Phone: 858 577 0585 Fax: 858 577 0586

3. Model Year: 2001
4. Process Code: New
   (new, correction,revision,r/c,f/f.etc)
5. Engine Family:
   50s Engine Code: RE 1.6 001
   49s Engine Code: RE 1.6 001
   Calif. Engine Code: RE 1.6 001
6. Emission Control System: 2 OC
7. Calif. Designated Standard: 1.4gr HC
8. Projected Annual Sales:__

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9. New Technology____ Yes _X_NO
   If yes, cite the correspondance of reference the submittal document:_____
10. Displacement: 1584
11. Number of Cylinders: 4
12. Cylinder Arrangement: Flat 4
13. Cylinder Head Configuration: 2 Valves
14. Type of Cooling: Air
15. Combustion Cycle: Otto 4 stroke
16. Method of Aspiration: NA
17. Fuel System: Carbureted
18. Number of Catalytic Converters: 2
19. Adjustable Parameters:

Parameter(s)	Adjustable Rage (or NA)	Tamper Resistance Method (or NA)	Method Approved
Ignition Timing	7.5 BTDC		
Idle speed	850+/- 50min[1]		

20. AECDs In the Emission Control System

Exhaust System	Evaporative System
AECDs in System: None	AECDs in System: None

(Model Year)/(Manufacturer)Motorcycle
2001 Rewaco-Trikes llc.

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Issued:
Revised:
E.O. #: M-51-1
Engine Family: 1RTLC01.6RWC

Motorcycle Test Information

27. Are you carrying over test results from a previously certified family? ___ Yes X No

0.03

a) If yes, indicate family name: _____

b) Is the family being certified identical to the family from which the data is being carried over? ___

28. Model Designation of Test Vehicle: HS5
29. Test Information Number: 001
30. Vehicle ID: RE 1.6K
31. Service Accumulation Duration: 15'000 (km)
32. Maximum Rated Power: 37KW@ 4000 RPM
33. Displacement: 1584 cc
34. Certification Fuel: RON Indolene
35 Test Data Set: 001
36. Road Load: 193N
37. Inertia Mas: 570kg
38. N/V: 31.21
39. EVAP Bench Test Method Approved:
Date: _____
Reference: _____
40. Unscheduled Maintenance: ___ Yes X No
41 If yes, Vehicle Log provided: _____

42. Exhaust Emission Deterioration Factors:

		Emission Values	
Test Number	System Kilometers	HC	CO
1	321	0.263	0.786
2	5034	1.014	10.792
3	10035	0.404	2.059
4	15061	0.772	5.511
5			
6			
7			
Interpolated Values at 15'000km:		HC= 0.7471	CO = 5.5475
Extrapolated Values at 30'000 km:		HC = 1.0190	CO = 7.0917

Check one:	
Regular DF	X
Modified DF	
If different vehicle specify vehicle ID	

43. Emission Test Results:

Official Test Results		Test 1	Test 2	Test 3	Test 4		Deterioration Factors
g/km	CO	0.786	10.792	2.059	5.511	(X)	1.2784
g/km	CO2	239.96	219.25	213.19	226.48		
g/km	HC	0.263	1.014	0.404	0.772	(X)	1.3639
g/km	Evap	1.796	1.021	1.336	1.552	(-)	0.2500

44. Certification Levels:

g/km	CO				7.0453
g/km	HC				1.0529
g/km	Evap				1.802

Application Processed by: Joseph Tegede Date: 2/16/01
Reviewed by: [signature] Date: 2/20/01