GREENKRAFT INC.

EXECUTIVE ORDER A-398-0009 New On-Road Heavy-Duty Engines Page 1 of 1 Pages

Pursuant to the authority vested in the Air Resources Board by 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-02-003;

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	AR ENGINE FAMILY		ENGINE SIZES (L)	FUEL TYPE 1	STANDARDS & TEST PROCEDURE	SERVICE	ECS & SPECIAL FEATURES 3	DIAGNOSTIC <sup>6</sup> EMD+			
2014			6.0	LPG	Otto	HDO	2TWC, 2HO2S(2), SFI				
	ENGINE'S IDLE NS CONTROL	ADDITIONAL IDLE EMISSIONS CONTROL 5									
N/A		N/A									
ENGINE (	L)	ENGINE MODELS / CODES (rated power, in hp)									
6.0		V8 / 605851111 (323), 20 (322), 30 (323), 40 (323), 50 (307), 60 (307)									
L=liter; hp: 1 CNG/Lh 2 L/M/H F 3 ECS=er up catalyst; TBI=throttle super charge control mod 5 ESS=er (per 13 CCI	=horsepower; kw=ki MG=compressed/liqu IDD=light/medium/he mission control syste DPF=diesel particue bedy fuel injection; ber; CAC=charge ain ule; EM=engine mo ngine shutdown syste R 1956.8(a)(6)(D); E	lowatt; hr efied nature eavy heavy m; TWC/0 late filter; SFI/MFI=: cooler; E dification; em (per 13 exempt=ex	=hour; ral gas; LPG=liquefie r-duty diesel; UB=urk C=three-way/oxidizir PTOX=periodic trap osequential/multi port fi GR / EGR-C=exhaus 2 (prefix)=parallel; ( CCR 1956, 6(4)6(A), tempted per 13 CCR	d petroleum gas; E85=85% et de petroleum gas; E85=85% et de petroleum gas; HDO=heavy duty Ottung catalyst; NAC=NOx adsorp exidizer; HO2S/O2S=heated/ouel injection; DGI=direct gasol gas recirculation / cooled EGI 20 (suffix)=in series; (1); 30g=30 g/hr NOx (per 13	hanol fuel; MF=mult o; iion catalyst; SCR-U xygen sensor; HAF: ine injection; GCAR R; PAIR/AIR=pulsec CCR 1956.8(a)(6)(C G fuel systems; N/A	ii fuel a.k.a. BF=  I / SCR-N=select S/AFS=heated/ai B=gaseous carb d/secondary air ir ); APS =internal =not applicable (	86.abc=Title 40, Code of Federal Regulation in the fuel; DF=dual fuel; FF=flexible fuel; ive catalytic reduction – urea / – ammonia; rr-fuel-ratio sensor (a.k.a., universal or linea ruretor; IDI/DDI=indirect/direct diesel injection; SPL=smoke puff limiter; ECM/PC combustion auxiliary power system; ALT=(e.g., Otto engines and vehicles);	WU (prefix) =warm- r oxygen sensor); on; TC/SC=turbo/ M=engine/powertrain			

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.8 are in parentheses.).

in g/bhp-hr	NMHC		NOx		NMHC+NOx		со		. PM		нсно	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.14	*	0.20	*	*	*	14.4	*	0.01	*	0.01	*
FEL	*	*	*	*	*	*	*	*	*	*	*	*
CERT	0.00	*	0.12	*	*	*	5.0	*	0.001	*	0.007	*
NTE	*		*		*		*		*		*	

4 g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle, including RMCSET=ram mode cycle supplemental emissions testing; NTE=Not-to-Exceed; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde; (Rev.: 2007-02-26)

BE IT FURTHER RESOLVED: Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

**BE IT FURTHER RESOLVED:** For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1971 (engine manufacturer diagnostic), and 13 CCR 2035 et seq. (emission control warranty).

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 Executive Order.

Executed at El Monte, California on this \_\_\_\_\_\_ 264 day of November 2013.

Érik White, Chief

Mobile Source Operations Division