California Environmental Protection Agency AIR RESOURCES BOARD	THUNDER MOTORSPORTS, INC.	EXECUTIVE ORDER U-M-048-0010 New Emission-Compliant Off-Highway Recreational Vehicles

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapters 1 and 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: The engine and exhaust emission control systems produced by the manufacturer are certified as described below for off-highway recreational vehicles. Production vehicles shall be in all material respects the same as those for which certification is granted. **The manufacturer shall ensure that character "C" or "3" is not used in the eighth (8th) position of the vehicle identification number (VIN) of all vehicles in the engine family listed below. Violation of this VIN provision may result in incorrect registration of the vehicles.**

MODEL YEAR	ENGINE FAMILY	ENGINE DISPLACEMENT (cc)	VEHICLE TYPE	FUEL TYPE	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS
2008	8TNDX6.00E09	6000, 5700	SCAR	Gasoline	2TWC, 2HO2S, MFI

VEHICLE MAKE and MODEL / ENGINE CODE (EIM in "kg" for Certification Chassis Testing, or Rated Power in "kW" or "hp" for Certification Engine Testing)

MAKE	ENGINE (cc)	VEHICLE MODEL	MAKE	ENGINE (cc)	VEHICLE MODEL
JOYNER	6000	LS2 SAND RUNNER / 04 (840 kg)	JOYNER	6000	LS2 SAND VIPER / 04 (840 kg)
JOYNER	6000	LS2 SAND NITRO / 04 (840 kg)	JOYNER	6000	LS2 OHV / 04 (840 kg)
JOYNER	5700	LS1 SAND RUNNER / 04 (840 kg)	JOYNER	5700	LS1 SAND VIPER / 04 (840 kg)
JOYNER	5700	LS1 SAND NITRO / 04 (840 kg)	JOYNER	5700	LS1 OHV / 04 (840 kg)
*	*	*	*	*	*

ATV=all-terrain vehicle; OFMC=off-road motorcycle; UV=off-road utility vehicle; SV=off-road sport vehicle; SCAR=sand car; EM=engine modification; TWC=three-way catalyst; OC=oxidizing catalyst; WUTWC/WUOC=warm-up TWC/OC; O2S=oxygen sensor HO2S=heated O2S; EGR=exhaust gas recirculation; AIR=secondary air injection; PAIR=pulsed AIR; MFI=multi port fuel injection; SFI=sequential MFI; TBI=throttle body fuel injection; DGI=direct gasoline injection; TC/SC=turbo/super charger; CAC=charge air cooler; EIM=equivalent inertia mass; 2 (prefix)=parallel; (2) (suffix)=in series;

Following are the exhaust emission standards, or designated standard as applicable, and certification levels for this engine family. The designated standard, as applicable, shall be shown on the permanent emission control label. Vehicles within this engine family shall not discharge any crankcase emissions into the ambient atmosphere in conformance with Title 13, California Code of Regulations, Section (13 CCR) 2412(i).

	HC				HC+NOx				CO	
	CERT	STD	DSN_STD	CAV_STD	CERT	STD	DSN_STD	CAV_STD	CERT	STD
CHASSIS TESTING (g/km)	0.5	1.2	*	*	*	*	*	*	1.8	15.0
ENGINE TESTING (g/kW-hr)	*	*	*	*	*	*	*	*	*	*

CAV_STD=corporate average standard; DSN_STD=manufacturer designated standard; STD=direct standard; CERT=certification level; HC=hydrocarbons; NOx=oxides of nitrogen; CO=carbon monoxide; g/km=grams per kilometer; g/kW-hr=grams per kilowatt-hour; g/bhp-hr=grams per brake horsepower-hour; *=not applicable;

BE IT FURTHER RESOLVED: For the off-highway recreational vehicles listed above, the manufacturer has submitted materials to demonstrate certification compliance with the evaporative emission requirements in 13 CCR 2412, as applicable.

BE IT FURTHER RESOLVED: Certification to the designated standard listed above, as applicable, is subject to the following terms, limitations and conditions. The designated standard shall be the exhaust limit for this engine family for the model year and cannot be changed by the manufacturer. It serves as the exhaust standard applicable to this engine family for determining engine family compliance, and compliance with the corporate average standard in accordance with 13 CCR 2412(b), 13 CCR 2412(d), and 13 CCR 2414.

BE IT FURTHER RESOLVED: The listed vehicles shall comply with 13 CCR 1965 and 13 CCR 2413 (emission control labels). The vehicles shall also be subject to 13 CCR 2414 (enforcement and recall provisions).

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

This Executive Order is only granted to the engine family and model-year listed above. Vehicles in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 16th day of November 2007.

Annette Hebert, Chief
Mobile Source Operations Division