California Environmental Protection Agency AIR RESOURCES BOARD	THUNDER MOTORSPORTS, INC.	EXECUTIVE ORDER U-M-048-0008 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	8TNDX1.60E04	1100, 1600	SCAR	Gasoline	TWC, HO2S, 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
THUNDER MOTORSPORTS	1600	1600CC SAND VIPER / 04 (710 kg)	THUNDER MOTORSPORTS	1100	1100CC SAND VIPER / 04 (670 kg)
THUNDER MOTORSPORTS	1100	1100CC TROOPER / 04 (670 kg)	THUNDER MOTORSPORTS	1100	1100CC DEFENDER / 04 (670 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)	0.1	1.2	*	*	*	*	*	*	1.0	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: The above-listed off-road utility vehicles, off-road sport vehicles, or sand cars, as applicable, are conditionally certified based on the amendments to 13 CCR 2410 et seq. adopted by the Board on July 20, 2006. In the event the amendments do not become effective, the manufacturer shall be required to certify these vehicles, as applicable, pursuant to 13 CCR 2400 et seq. (small spark-ignition engines at or below 19 kilowatts), 13 CCR 2430 et seq. (large spark-ignition engines over 19 kilowatts), or 13 CCR 2420 et seq. (off-road compression-ignition engines) and, as applicable, to 13 CCR 2750 et seq. (evaporative emission requirements for off-road equipment) within 45 days after notification by the ARB or this Executive Order may be revoked and voided *ab initio*. Vehicles sold under the revoked and voided Executive Order shall be deemed uncertified and subject to penalties under State laws.

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 applicable to 2008 model-year and subsequent off-highway recreational vehicles that were adopted by the Board on July 20, 2006. In the event the amendments do not become effective, these vehicles shall not be required to comply with the evaporative emission requirements.

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 26 day of July 2007.

Annette Hebert

Annette Hebert, Chief
Mobile Source Operations Division