Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 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-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2005	5SZXL07.8EXA	7.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler	Crane, Loader, Dozer, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW < 225	Tier 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
		CERT	--	--	6.2	1.0	0.14	16	1	46

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines 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. Engines 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 December 2004.

Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **Isuzu Motors Limited**

Engine category: **Nonroad CI**

EPA Engine Family: **5SZXL07.8EXA**

Mfr Family Name: **NA**

Process Code: **New Submission**

ATTACHMENT

U-R-006-0215

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
6HK1XABEA-01	AA-6HK1X	265.9@2000	137.7@2000	91.9@2000	744.9@1600	139.9@1600	74.7@1600	EM,TC,CAC,DFI
6HK1XABEA-02	AA-6HK1X	241.4@1750	140.3@1750	81.9@1750	744.9@1600	139.9@1600	74.7@1600	EM,TC,CAC,DFI
6HK1XABEA-03	AA-6HK1X	177.5@2000	90.6@2000	60.4@2000	565.0@1300	90.9@1300	39.4@1300	EM,TC,CAC,DFI
6HK1XABEA-04	AA-6HK1X	174.3@1750	99.2@1750	57.9@1750	565.0@1300	90.9@1300	39.4@1300	EM,TC,CAC,DFI
6HK1XABEA-05	AA-6HK1X	246.5@2200	123.0@2200	90.3@2200	705.8@1600	132.4@1600	70.7@1600	EM,TC,CAC,DFI
6HK1XABEA-06	AA-6HK1X	238.3@2000	125.0@2000	83.4@2000	705.8@1600	132.4@1600	70.7@1600	EM,TC,CAC,DFI
6HK1XABEA-07	AA-6HK1X	184.8@2200	90.5@2200	66.4@2200	565.0@1300	90.9@1300	39.4@1300	EM,TC,CAC,DFI
6HK1XABEA-08	AA-6HK1X	248.6@2000	130.4@2000	87.0@2000	709.8@1600	137.3@1600	73.3@1600	EM,TC,CAC,DFI
6HK1XABEA-09	AA-6HK1X	247.6@1900	133.9@1900	84.8@1900	709.8@1600	137.3@1600	73.3@1600	EM,TC,CAC,DFI
6HK1XABEB-01	AA-6HK1X	248.6@2000	130.4@2000	87.0@2000	709.8@1600	137.3@1600	73.3@1600	EM,TC,CAC,DFI