California Environmental Protection Agency AIR RESOURCES BOARD	MITSUBISHI FUSO TRUCK AND BUS CORPORATION	EXECUTIVE ORDER U-R-042-0035 New Off-Road Compression-Ignition Engines

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 engine and emission control system 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)
2008	8MFTL04.9M5A	4.899	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control module, Exhaust Gas Recirculation	Excavator, Dump Truck, Rough Terrain Crane

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
75≤KW<130	Tier 3	STD	N/A	N/A	4.0	5.0	030	20	15	50
		CERT	--	--	3.1	1.0	0.16	3	1	13

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 20 day of September 2007.

Annette Hebert, Chief
Mobile Source Operations Division

ATTACHMENT 1 OF 1

Engine Model Summary Template

U-R-042-0035

Engine Family	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
8MFTL04.9M5A	4M50TLA3A-US08	4M50-TLA3A	173 @ 2200	127	62.1	428@1600	131	46.4	DDI,EM,ECM,EGR,[redacted] TC,CAC
8MFTL04.9M5A	4M50TLA3B-US08	4M50-TLA3B	173 @ 2700	108	64.8	391@1600	120	42.7	DDI,EM,ECM,EGR,[redacted] TC,CAC
8MFTL04.9M5A	4M50TLA3C-US08	4M50-TLA3C	158 @ 2000	125	55.6	428@1600	130	46.2	DDI,EM,ECM,EGR,[redacted] TC,CAC
8MFTL04.9M5A	4M50TLA3D-US08	4M50-TLA3D	145 @ 2000	116	51.6	406@1600	121	43.1	DDI,EM,ECM,EGR,[redacted] TC,CAC
8MFTL04.9M5A	4M50TLA3E-US08	4M50-TLA3E	131 @ 2000	107	47.6	369@1600	112	39.8	DDI,EM,ECM,EGR,[redacted] TC,CAC
8MFTL04.9M5A	4M50TLA3F-US08	4M50-TLA3F	110 @ 2000	89	39.6	310@1600	94	33.4	DDI,EM,ECM,EGR,[redacted] TC,CAC