California Environmental Protection Agency AIR RESOURCES BOARD	MITSUBISHI HEAVY INDUSTRIES, LTD.	EXECUTIVE ORDER U-R-035-0199 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)
2007	7MVXL01.0BBB	0.6, 0.8, 1.0	Diesel	3000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Indirect Diesel Injection	Tractor, Generator and 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
8 ≤ KW < 19	Tier 2	STD	N/A	N/A	7.5	6.6	0.80	20	15	50
		CERT	--	--	4.9	2.1	0.41	4	3	6

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 22ND day of December 2006.

Raphael Susnowitz

for Annette Hebert, Chief
Mobile Source Operations Division

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Engine Model Summary Template

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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
'MVXL01.0BBB	L2E-W261DPA	L2E	15.2@3600	19.4	7.7	25.0@2400	19.2	5.1	IDI
'MVXL01.0BBB	L2E-W261DPH	L2E	15.2@3600	19.4	7.7	25.0@2400	19.2	5.1	IDI
'MVXL01.0BBB	L2E-W261DPHA	L2E	15.2@3600	19.4	7.7	25.0@2400	19.2	5.1	IDI
'MVXL01.0BBB	L2E-W261ML	L2E	11.3@2500	17.9	4.9	34.5@2300	18.1	4.6	IDI
'MVXL01.0BBB	L2E-W261TRGH	L2E	15.2@3600	19.4	7.7	25.0@2400	19.2	5.1	IDI
'MVXL01.0BBB	L2E-W262SDH	L2E	15.2@3600	19.4	7.7	25.0@2400	19.2	5.1	IDI
'MVXL01.0BBB	L2E-W262WM	L2E	16.7@3600	21.4	8.5	27.5@2400	20.7	5.5	IDI
'MVXL01.0BBB	L2E-W262WMG	L2E	15.2@3600	19.4	7.7	25.0@2400	19.2	5.1	IDI
'MVXL01.0BBB	L2E-W264SGHM	L2E	15.2@3600	19.4	7.7	25.0@2400	19.2	5.1	IDI
7MVXL01.0BBB	L3C-W263WMA	L3C	11.0@1800	15.9	4.7	31.8@1350	16.6	3.7	IDI
7MVXL01.0BBB	L3E-W211RH	L3E	17.3@2600	18.7	8.0	39.8@1800	19.8	5.9	IDI
7MVXL01.0BBB	L3E-W231NSA	L3E	17.4@2400	18.2	7.2	36.2@1800	17.6	5.2	IDI
7MVXL01.0BBB	L3E-W261AL	L3E	12.5@1800	17.6	5.2	36.2@2300	17.8	4.0	IDI
7MVXL01.0BBB	L3E-W261CG	L3E	12.5@1800	17.6	5.2	36.2@1350	17.8	4.0	IDI
7MVXL01.0BBB	L3E-W261DG	L3E	12.5@1800	17.6	5.2	36.2@1350	17.8	4.0	IDI
7MVXL01.0BBB	L3E-W261DPA	L3E	23.8@3600	20.0	11.9	39.1@2200	19.0	6.9	IDI
7MVXL01.0BBB	L3E-W261DPH	L3E	23.8@3600	20.0	11.9	39.1@2200	19.0	6.9	IDI
7MVXL01.0BBB	L3E-W261DPHA	L3E	23.8@3600	20.0	11.9	39.1@2200	19.0	6.9	IDI
7MVXL01.0BBB	L3E-W261DW	L3E	17.3@2300	19.0	7.2	41.2@2000	20.1	6.7	IDI
7MVXL01.0BBB	L3E-W261ML	L3E	12.5@1800	17.6	5.2	36.2@1350	17.8	4.0	IDI
7MVXL01.0BBB	L3E-W261WM	L3E	13.0@1800	18.7	5.5	38.3@1350	18.9	4.2	IDI
7MVXL01.0BBB	L3E-W262KL	L3E	17.4@2400	18.2	7.2	36.2@1800	17.6	5.2	IDI
7MVXL01.0BBB	L3E-W262SD	L3E	12.5@1800	17.6	5.2	36.2@1350	17.8	4.0	IDI
7MVXL01.0BBB	L3E-W263ESA	L3E	15.4@2200	17.6	6.4	34.4@1650	16.6	4.5	IDI
7MVXL01.0BBB	L3E-W264ESA	L3E	15.1@2150	17.6	6.4	34.4@1650	16.6	4.5	IDI
7MVXL01.0BBB	L3E-W264SGHM	L3E	23.8@3600	20.0	11.9	39.1@2200	19.0	6.9	IDI

Engine Model Summary Template

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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
7MVXL01.0BBB	L3E-W265ESB	L3E	14.3@2000	18.3	6.1	36.2@1800	17.2	5.1	IDI
7MVXL01.0BBB	L3E-W2SCMC	L3E	15.7@2100	19.4	6.7	39.8@2000	19.4	6.4	IDI
7MVXL01.0BBB	L3E-Y162WM	L3E	25.1@3600	20.9	12.4	41.2@2200	20.1	7.5	IDI
7MVXL01.0BBB	L3E-W263KL	L3E	16.1@2250	18.2	6.7	36.2@1800	17.6	5.2	IDI