California Environmental Protection Agency AIR RESOURCES BOARD	Cummins Inc.	EXECUTIVE ORDER U-R-002-0262 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)
2005	5CEXL060.ABA	45.0, 60.0	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module	Generator Set

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
kW > 560	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	N/A	N/A	N/A
		CERT	0.2	8.2	--	1.3	0.13	--	--	--

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 13th day of October 2004.

Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summary Form

ATTACHMENT Pg 1 of 1

U-R-002-0262

Manufacturer: **Cummins Inc.**

Engine category: **Nonroad CI**

EPA Engine Family: **5CEXL060.ABA**

Mfr Family Name: **B593**

Process Code: **New Submission**

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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
8451:FR6451	QSK60-G9	3414@1800	699	1130.9	N/A	N/A	N/A	DDI,ECM,TC,C
8451:FR6437	QSK60-G9	3251@1800	659	1066.9	N/A	N/A	N/A	DDI,ECM,TC,C
2920:FR6358	QSK60-G6	3067@1800	639	1035	N/A	N/A	N/A	DDI,ECM,TC,C
2920:FR6364	QSK60-G6	2922@1800	602	975	N/A	N/A	N/A	DDI,ECM,TC,C
2920:FR6371	QSK60-G6	2922@1800	627	1015	N/A	N/A	N/A	DDI,ECM,TC,C
2920:FR6346	QSK60-G5	2547@1800	511	827	N/A	N/A	N/A	DDI,ECM,TC,C
2935:FR6316	QSK45-G8	2205@1800	592	719	N/A	N/A	N/A	DDI,ECM,TC,C
2935:FR6336	QSK45-G7	1991@1800	563	684	N/A	N/A	N/A	DDI,ECM,TC,C
2655:FR6317	QSK45-G4	1823@1500	578	585	N/A	N/A	N/A	DDI,ECM,TC,C
2655:FR6317	QSK45-G4	1850@1800	503	611	N/A	N/A	N/A	DDI,ECM,TC,C
8294:FR6428	QSK60-G3	2400@1800	473	765.1	N/A	N/A	N/A	DDI,ECM,TC,C
8336:FR6439	QSK60-G	2399@1500	575	775.9	N/A	N/A	N/A	DDI,ECM,TC,C
8336:FR6439	QSK60-G	2922@1800	603	976.1	N/A	N/A	N/A	DDI,ECM,TC,C