California Environmental Protection Agency AIR RESOURCES BOARD	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0492 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)
2009	9CEXL030.AAB	30.0	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module	Haul Truck, Drill and 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
kW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		CERT	--	--	5.6	0.9	0.09	20	3	34

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 23rd day of December 2008.

Raphael Susnowitz

for Annette Hebert, Chief
Mobile Source Operations Division

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Engine Model Summary Template

U-R-002-0492

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
9CEXL030.AAB	2139:FR5281	QST30-C	1200@2100	297	421	3751@1400	365	345	DDI,ECM,TC,CAC
9CEXL030.AAB	2139:FR5282	QST30-C	1050@2100	266	377	3414@1300	339	298	DDI,ECM,TC,C
9CEXL030.AAB	1244:FR5283	QST30-C	1200@2100	297	420	3751@1400	369	348	DDI,ECM,TC,C
9CEXL030.AAB	1244:FR5284	QST30-C	1050@2100	266	377	3414@1300	339	298	DDI,ECM,TC,C
9CEXL030.AAB	1244:FR5285	QST30-C	950@2100	244	346	3089@1300	311	273	DDI,ECM,TC,C
9CEXL030.AAB	1244:FR5286	QST30-C	1050@1800	308	374	3414@1300	340	298	DDI,ECM,TC,C
9CEXL030.AAB	1244:FR5287	QST30-C	1000@1800	291	353	3414@1300	340	298	DDI,ECM,TC,C
9CEXL030.AAB	1244:FR5289	QST30-C	850@1800	250	304	2800@1300	289	253	DDI,ECM,TC,C