California Environmental Protection Agency AIR RESOURCES BOARD	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0371-1 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	7CEXL050.AAC	50.0	Diesel	8000

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

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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
		FEL	N/A	N/A	N/A	N/A	0.17	N/A	N/A	N/A
		CERT	--	--	5.9	1.7	0.09	15	4	21

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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.

This Executive Order hereby cancels and replaces Executive Order U-R-002-0371 dated November 6, 2006.

Executed at El Monte, California on this 7th day of September 2007.

Annette Hebert, Chief
Mobile Source Operations Division

ATTACHMENT Pg 1 of 1

Engine Model Summary Form

U-R-002-0371-1

Manufacturer: **Cummins Inc.**

Engine category: **Nonroad CI**

EPA Engine Family: **7CEXL050.AAC**

Mfr Family Name: **C283**

Process Code: **New Submission**

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
8524:FR6545	QSK50-C	2300@1900	470	803.0	6514@1500	467	630.0	DDI,ECM,TC,CAC
8524:FR6452	QSK50-C	2000@1900	407	696.0	5805@1500	433	651.0	DDI,ECM,TC,C
8524:FR6574	QSK50-C	2250@1900	459	785	6300@1500	467	630	DDI,ECM,TC,C
8624:FR6502	QSK50-C	1400@1800	306	496.0	4705@1300	373	436	DDI,ECM,TC,C
0563:FR4436	QSK19-C	800@2100	395	280.0	2275@1500	446	226.0	DDI,ECM,TC,C
0563:FR4445	QSK19-C	760@2100	374	265.0	2275@1500	446	226.0	DDI,ECM,TC,C
0563:FR4444	QSK19-C	755@1800	428	260.0	2275@1500	446	226.0	DDI,ECM,TC,C
1925:FR6578	QSK38-C	920@1200	396	320.1	4570@1000	458	309.0	DDI,ECM,TC,C
1925:FR6600	QSK38-C	1034@1200	447	362.0	N/A	N/A	N/A	DDI,ECM,TC,C
2760:FR6610	QSK50-C	2250 @ 1900	459	785.0	6300 @ 1500	467	630.0	DDI,ECM,TC,C
2760:FR6611	QSK50-C	2300 @ 1900	470	803.0	6514 @ 1500	483	651.0	DDI,ECM,TC,C
2760:FR6612	QSK50-C	2000 @ 1900	404	690.0	5805 @ 1500	433	584.0	DDI,ECM,TC,C
2756:FR4463	QSK19-C	800 @ 2100	395	280.0	2275 @ 1500	447	226.0	DDI,ECM,TC,C
2756:FR4464	QSK19-C	755 @ 1800	428	260.0	2275 @ 1500	447	226.0	DDI,ECM,TC,C
2756:FR4465	QSK19-C	760 @ 2100	375	265.0	2275 @ 1500	447	226.0	DDI,ECM,TC,C
2959:FR6624	QSK50-C	1480 @ 1200	480	518.0	NA	NA	NA	DDI,ECM,TC,C
2758:FR6626	QSK38-C	1086 @ 1800	314	381.0	3590 @ 1350	375	341.0	DDI,ECM,TC,C
2758:FR6628	QSK38-C	1086 @ 1800	314	381.0	3590 @ 1350	375	341.0	DDI,ECM,TC,C
2761:FR6615	QSK50-C	1400 @ 1800	300	486.0	4705 @ 1300	368	430.0	DDI,ECM,TC,C
2761:FR6625	QSK50-C	1600 @ 1800	342	554.0	5040 @1500	374	504.0	DDI,ECM,TC,C
2759:FR6639	QSK38-C	1034 @ 1200	447	362.0	N/A	N/A	N/A	DDI,ECM,TC,C
2759:FR6631	QSK38-C	920 @ 1200	398	322.0	4570 @ 1000	454	306.0	DDI,ECM,TC,C
2758:FR6630	QSK38-C	1260@1800	358	435.0	3861@1400	398	376.0	DDI,ECM,TC,C