California Environmental Protection Agency Air Resources Board	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0639 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-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems 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)
2016	GCEXL06.7AAK	6.7	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Selective Catalytic Reduction – Urea, Ammonia Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor, and 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 (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	0.17	--	0.00	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

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 3 day of November 2015.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Template

UR-002-0639 Attachment #3 1/2 8/28/2015

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
GCEXL06.7AAK	3857:FR93809	QSB6.7	300@2500	149	126	770@1500	153	77	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93810	QSB6.7	275@2500	120	101	730@1500	137	69	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93811	QSB6.7	260@2500	124	104	730@1500	137	69	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93877	QSB6.7	225@2500	101	85	655@1500	122	62	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93878	QSB6.7	194@2300	92	71	590@1500	109	55	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93879	QSB6.7	260@2200	137	102	730@1500	137	69	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93880	QSB6.7	249@2200	117	87	730@1500	137	69	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93812	QSB6.7	225@2200	115	85	700@1500	131	66	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93876	QSB6.7	225@2200	115	85	770@1500	153	77	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93813	QSB6.7	200@2200	94	70	685@1500	128	65	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93881	QSB6.7	249@2000	127	86	730@1500	137	69	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93882	QSB6.7	225@2000	115	77	700@1500	131	66	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93883	QSB6.7	190@2000	96	65	597@1500	111	56	DDI,ECM,TC
GCEXL06.7AAK	3857:FR93884	QSB6.7	215@1800	119	72	680@1350	131	60	DDI,ECM,TC
GCEXL06.7AAK	3857:FR94862	QSB6.7	249@2000	127	86	730@1500	137	69	DDI,ECM,TC
GCEXL06.7AAK	3857:FR94949	QSB6.7	225@2200	115	85	770@1500	153	77	DDI,ECM,TC

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
GCEXL06.7AAK	3857:FR94986	QSB6.7	225@2000	112	76	591@1500	75.5	66	DDI,ECM,TC
GCEXL06.7AAK	3856:FR93814	QSB6.7	173@2300	82	63	620@1500	119	60	DDI,ECM,TC
GCEXL06.7AAK	3856:FR93885	QSB6.7	164@2300	79	61	540@1500	101	51	DDI,ECM,TC
GCEXL06.7AAK	3856:FR93815	QSB6.7	173@2200	84	62	620@1500	119	60	DDI,ECM,TC
GCEXL06.7AAK	3856:FR93886	QSB6.7	155@2200	77	57	496@1500	94	47	DDI,ECM,TC
GCEXL06.7AAK	3856:FR93816	QSB6.7	173@2100	85	61	620@1500	119	60	DDI,ECM,TC
GCEXL06.7AAK	3856:FR93887	QSB6.7	158@2100	81	58	620@1500	119	60	DDI,ECM,TC
GCEXL06.7AAK	3856:FR93888	QSB6.7	146@2100	75	53	620@1500	119	60	DDI,ECM,TC