Pursuant to the authority vested in California 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-19-095;

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)
2022	NCEXL03.8AAF	3.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Control Module, Periodic Trap Oxidizer, Diesel Oxidation Catalyst, Electronic Direct Injection, Turbocharger, Selective Catalytic Reduction - Urea, Charge Air Cooler, Ammonia Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor, Forklift, Sweeper and Telehandler

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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
56 ≤ kW < 130	Tier 4 Final	**STD**	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	0.14	--	0.01	0.01	--	--	--

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).

BE IT FURTHER RESOLVED: That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 56 ≤ kW < 130 power categories in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

BE IT FURTHER RESOLVED: That the listed engine family is conditionally certified pending submission of additional test data to verify compliance with useful-life emission standards. The manufacturer must submit the necessary data by February 28, 2022 to confirm or correct the certification emissions levels on this conditional certification. Failure to submit the necessary data or resolve concerns by the specified date, shall be cause for the Executive Officer to rescind this conditional certification, in which case all engines covered under this conditional certification and introduced into commerce in the State of California shall be deemed uncertified pursuant to Health and Safety Code Section 43153 and subject to civil penalties pursuant to Health and Safety Code Section 43154.

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 on this 20th day of January 2022.

Allen Lyons, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models **EO #:** U-R-002-0794 **Family:** NCEXL03.8AAF **Attachment Last Revised:** 7/20/2021

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
F3.8	OF1	N/A	I4	3.8	Liters	173	horsepower	2500	116	mm3/stroke	457	lb-ft	1500	133.5	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF2	N/A	I4	3.8	Liters	154	horsepower	2500	102	mm3/stroke	457	lb-ft	1500	133.5	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF3	N/A	I4	3.8	Liters	148	horsepower	2500	97.7	mm3/stroke	443	lb-ft	1500	126.9	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF4	N/A	I4	3.8	Liters	134	horsepower	2500	89.5	mm3/stroke	406	lb-ft	1500	117.5	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF5	N/A	I4	3.8	Liters	121	horsepower	2500	81.4	mm3/stroke	369	lb-ft	1500	106.2	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF6	N/A	I4	3.8	Liters	101	horsepower	2500	70.1	mm3/stroke	369	lb-ft	1500	106.2	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF7	N/A	I4	3.8	Liters	154	horsepower	2200	112	mm3/stroke	457	lb-ft	1500	133.5	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF8	N/A	I4	3.8	Liters	148	horsepower	2200	107.6	mm3/stroke	443	lb-ft	1500	126.9	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF9	N/A	I4	3.8	Liters	134	horsepower	2200	98.6	mm3/stroke	406	lb-ft	1500	117.5	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF10	N/A	I4	3.8	Liters	121	horsepower	2200	88.8	mm3/stroke	369	lb-ft	1500	106.2	mm3/stroke	N/A	N/A	N/A	N/A
F3.8	OF11	N/A	I4	3.8	Liters	101	horsepower	2200	74.7	mm3/stroke	368	lb-ft	1500	106.2	mm3/stroke	N/A	N/A	N/A	N/A