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-45-9;

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)					
2002	2CPXL06.6MRB	6.6	Diesel	8000					
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION						
Direct Dies	sel Injection, Turbocharg and Smoke Puff Li	er, Charge Air Cooler miter	Loader, Tractor and Indu	strial 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	EMISSION STANDARD			E	EXHAUST (g/kw-ł	OPACITY (%)					
CLASS	CATEGORY		нс	NOx	NMHC+NOx	со	РМ	ACCEL	LUG	PEAK	
130 <u>&lt;</u> KW <225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50	
75 <u>&lt;</u> KW<130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50	
		CERT	0.3	8.4		2.0	0.34	14	4	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.

ナん

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

dav of December 2001.

R. B. Summerfield, Chief Mobile Source Operations Division

Engine Model SC mary Form

•

•

ATT CHMENT 1 OF 1

Manufacturer:CATERPILLAR INC.Engine category:Nonroad Over 50 HpEPA Engine Family:2CPXL06.6MRB

Process Code: New Submission

Mfr Family Name: N/A

6210-100-X-M

9.Emission Control Device Per SAE J1930		EM. DI. TC. SPL.	DI, TC,	ā	ЦĊ.	DI, TC,	DI, TC,	EM, DI, TC, SPL,		EM, DI, TC, SPL,	EM, DI, TC, SPL,	EM, DI, TC, SPL,	Ē	DI, TC.	EM, DI, TC,	EM. DI. TC.	DI, TC,	DI, TC,	EM, DI, TC, SPL,	Ē	EM, DI, TC, SPL,	μ	EM, DI, TC, SPL,	EM, DI, TC, SPL,	EM, DI, TC, SPL.							
8.Fuel Rate: (lbs/hr)@peak torque	mav change.	63.8 <b>K</b>	56.2	52.4	56.1	59.1	57.1	52.6	48.3	53.6	52.9	53.2	49.2	54.1	47.4 PAC	44.6	40.1	54.6	45.1	41.8	38.6	43.9	43.4	45.9	59.1	59.1	50.0	42.2	52.8	56.9	49.7	612 .1
7.Fuel Rate: mm/stroke@peak torque	these fuel rates	115	115	111	115	121	117	108	103	110	108	96	89	111	97	91	85	112	92	86	79	06	89	94	121	121	103	87	112	113	106	130
6.Torque @ RPM (SEA Gross)	ion engine avgs.	586 @ 1650	575 @ 1450	551 @ 1400	573 @ 1450	604 @ 1450	592 @ 1450	544 @ 1450	515 @ 1400	552 @ 1450	545 @ 1450	490 @ 1650	460 @ 1650	550 @ 1450	482 @ 1450	453 @ 1450	420 @ 1400	555 @ 1450	458 @ 1450	423 @ 1450	405 @ 1450	0	0	467 @ 1450	607 @ 1450	606 @ 1450	509 @ 1450	422 @ 1450	569 @ 1400	561 @ 1500	525 @ 1400	604 @ 1400
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	Due to product-	87.4	75.9	72.0	74.6	76.5	70.4	68.0	64.2	67.5	64.7	74.2	66.5	78.4	66.4	64.0	58.6	71.4	59.5	56.1	52.5	55.7	53.6	55.4	66.0	62.3	55.8	46.8	75.8	68.4	66.1	61.2
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	nominal values.	100	94	89	96	104	95	92	87	96	96	85	62	67	82	79	73	96	80	76	7	62	80	84	109	103	92	17	86	88	89	91
3.BHP@RPM (SAE Gross)	fuel rates are	220 @ 2600	0	0	0	205 @ 2200	0	0	8	0	0	0	0	0	0	165 @ 2400	0	0	0	0	0	0	8	0	0	0	0	130 @ 1800	0	0	180 @ 2200	177 @ 2000
2.Engine Model	and Peak torque	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116	3116
1.Engine Code	Note: Peak HP	~	n	4	5	9	7	ω	භ ්	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32