California Environmental Protection Agency **Air Resources Board**	**CUMMINS POWER GENERATION**	**EXECUTIVE ORDER U-U-008-0281** New Off-Road Small Spark-Ignition Engines at or Below 19 Kilowatts

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapters 1 and 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following engine and emission control systems produced by the manufacturer are certified for use in small 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 (cc)	ENGINE CLASS	FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)
2017	HN5XS.6532CC	653	4-stroke, ≥225 cc	Gasoline

DURABILITY HOURS	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
500	TWC, PAIR	Generator Set

ENGINE CODES/MODELS (rated power in kilowatt, kW)	See Attachment

ABBREVIATIONS: EM=engine modification TWC/OC=three-way/oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed AIR MFI=multi port fuel injection SFI=sequential MFI TBI=throttle body fuel injection DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2(prefix)=parallel (2)(suffix)=in series ECM=engine control module

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx), carbon monoxide (CO), and particulate matter (PM) emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2403(b)), and certification emission levels for this engine family in grams per kilowatt-hour (g/kW-hr). Engines within this engine family shall have closed crankcases in conformance with Section 1054.115(a) of the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines," adopted October 25, 2012.

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
STANDARD	8.0	549	*
FAMILY EMISSION LEVEL	8.0	549	*
CERTIFICATION LEVEL	5.9	388	*

BE IT FURTHER RESOLVED: That the family emission level(s) (FELs), as applicable, is an emission limit declared by the manufacturer for use in the 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 2403(e)(1) and 2407(a).

BE IT FURTHER RESOLVED: That for the listed engines, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2404 (emission control labels) and 13 CCR Sections 2405 and 2406 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Quarterly reports of engines produced in this engine family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter.

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 13 day of May 2016.

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

ATTACHMENT (page 1 of 2)

Model Year: 2017
Manufacturer: Cummins Power Generation
Engine Family: HN5XS.6532CC

Issued:
Revised: 4/12/2016
E.O. Number: U-U-008-0281

Small Off-Road Engine Model Summary Form

Units for Table: kW

Worst Case?	47. Model Designation	48. Sales Code	49. Displ (cc)	50. Bore/ Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated Torque	55. Torque Speed (RPM)	56. Emiss Control Sys
X	5.5HGJAB-6755	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	5.5HGJAB-1038	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	5.5HGJAB-901	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	5.5HGJAB-7103	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	5.5HGJAB-7866	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	5.5HGJAB-8214	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	5.5HGJAB-1049	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	5.5HGJAB-912	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC, PAIR
	7HGJAB-1036	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC, PAIR
	7HGJAB-6756	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC, PAIR

ATTACHMENT (page 2 of 2)

Model Year:	2017	Issued:	
Manufacturer:	Cummins Power Generation	Revised:	
Engine Family:	HN5XS.6532CC	E.O. Number	

Small Off-Road Engine Model Summary Form (page 2)

47	48	49	50	51	52	53	54	55	56
Model Designation	Sales-Code	Disp (cc)	Bore/ Stroke	Ignition Timing	Max Power	Rated Speed (RPM)	Rated Torque	Torque Speed (RPM)	Emiss Control Sys
7HGJAE-2132	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAE-2137	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAE-2556	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAE-6758	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAE-1912	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAE-2023	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAE-3243	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAE-7869	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAB-900	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
7HGJAB-911	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR
5.5HGJAE-2131	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
5.5HGJAE-2135	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
5.5HGJAE-2136	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
5.5HGJAE-2555	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
5.5HGJAE-6757	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
5.5HGJAE-7868	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
5.5HGJAE-3242	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
5.5HGJAE-3246	50-State	653	80/65	20	9.48	2400	38.3	2400	TWC,PAIR
7HGJAB-7867	50-State	653	80/65	20	10.31	2880	34.9	2880	TWC,PAIR