Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 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: The engine and exhaust emission control systems produced by the manufacturer are certified as described below for off-highway recreational vehicles. Production vehicles shall be in all material respects the same as those for which certification is granted. The manufacturer shall ensure that character "C" or "3" is not used in the eighth (8th) position of the vehicle identification number (VIN) of all vehicles in the engine family listed below. Violation of this VIN provision may result in incorrect registration of the vehicles.

Model Year	Engine Family	Vehicle Category	Fuel Type(s)	Strokes per cycle
2018	JJDXX.586AAA	OFRUV	GAS	4

Special Features & Emission Control Systems (ECS)	Engine(cc)
TWC, HO2S, MFI	586

Following are the exhaust emission standards, or designated standard as applicable, and certification levels for this engine family. The designated standard, as applicable, shall be shown on the permanent emission control label. Vehicles within this engine family shall not discharge any crankcase emissions into the ambient atmosphere in conformance with Title 13, California Code of Regulations, Section (13 CCR) 2412(i).

Exhaust Emissions (G/KM)			
Pollutant	CERT	STD	DES_STD
HC	0.26	1.2	*
HC+NOx	*	*	*
CO	1.8	15.0	

BE IT FURTHER RESOLVED: Certification to the designated standard listed above, as applicable, is subject to the following terms, limitations and conditions. The designated standard shall be the exhaust limit for this engine family for the model year and cannot be changed by the manufacturer. It serves as the exhaust standard applicable to this engine family for determining engine family compliance, and compliance with the corporate average standard in accordance with 13 CCR 2412(b), 13 CCR 2412(d), and 13 CCR 2414.

BE IT FURTHER RESOLVED: The listed vehicles shall comply with 13 CCR 1965 and 13 CCR 2413 (emission control labels). The vehicles shall also be subject to 13 CCR 2414 (enforcement and recall provisions).

BE IT FURTHER RESOLVED: For the off-highway recreational vehicles listed above, the manufacturer has submitted materials to demonstrate certification compliance with the evaporative emission requirements in 13 CCR 2412 (b)(2), as applicable.

BE IT FURTHER RESOLVED: For 2018 through 2021 model-year off-highway recreational vehicles subject to the evaporative emission requirement in 13 CCR 2418, the manufacturer has submitted materials to demonstrate certification compliance with the phase-in requirement in 13 CCR 2418(d).

BE IT FURTHER RESOLVED: For the off-highway recreational vehicles listed above, the manufacturer has submitted materials to demonstrate certification compliance with the evaporative emission requirements in 13 CCR 2418 (Evaporative Emission Standard and Test Procedures), 13 CCR 2419 (emission control labels), and 13 CCR 2419.1 and 13 CCR 2419.2 (Defect Warranty, and Evaporative Emissions Control System Warranty Statement, respectively). The evaporative emissions standards and certification emission levels for the listed vehicles are as listed on Attachment B. The vehicles shall also be subject to 13 CCR 2419.3 (enforcement and recall provisions).

Vehicles 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. Vehicles in this family that are produced for any other model-year are not covered by this Executive Order.

See Attachment A for vehicle descriptions.

Executed at El Monte, California on this 23rd day of August 2017.

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

ATTACHMENT A

Make	Model	Vehicle Category	Engine (cc)	Rated Power (kW)	EIM (kg)	TRANS	Emission Controls
JOHN DEERE	590E S4 XUV GATOR	OFRUV	586	24	880	CV	TWC, HO2S, MFI
JOHN DEERE	590E XUV GATOR	OFRUV	586	24	780	CV	TWC, HO2S, MFI
JOHN DEERE	590M S4 XUV GATOR	OFRUV	586	24	880	CV	TWC, HO2S, MFI
JOHN DEERE	590M XUV GATOR	OFRUV	586	24	780	CV	TWC, HO2S, MFI

ABBREVATIONS:

GENERAL: 13 CCR 1958, etc.=Title 13, California Code of Regulations, Section 1958, etc.; 40 CFR86.401-90, etc.=Title 40, Code of Federal Regulations, Section 86.401-90, etc.;

HIGHWAY MOTORCYCLE & OFF-HIGHWAY RECREATIONAL VEHICLE CATEGORIES: ATV or ATVA=all terrain vehicle conforming to the California definition in 13 CCR 2411(a); ATVB=Off-highway or non-road recreational vehicles that meet USEPA definition for an all-terrain vehicle or USEPA definition for an off-road utility vehicle and, in addition, meet one or more CARB definitions for an all terrain vehicle, off-road utility vehicle, off-road sport vehicle, and/or sand car; EGC=electric golf cart; HMC=on-road or highway motorcycle; HMC-IA / -IB=HMC below 50 cc / 50 cc to below 170 cc; HMC II=HMC 170 cc to below 280 cc; HMC-III=HMC 280 cc and above; OFMC=off-road motorcycle; SC=sand car above 1000 cc; OFRSV=off-road sport vehicle, including otherwise sand car but with 1000 cc engine or smaller; OFRUV=off-road utility vehicle;

FUEL TYPES: CLNG=natural gas in either CNG or LNG form; CNG / LNG=compressed / liquefied natural gas; DF_CNG/GAS=dual-fuel CNG or gasoline, etc; DSL=diesel; GAS=gasoline; HYD=hybrid; LPG=propane or liquefied petroleum gas;

EMISSION CONTROL SYSTEMS & SPECIAL FEATURES: AFS / HAFS=air fuel ratio sensor / heated AFS; (prefix) 2, 3, 4=2, 3, or 4 catalysts, sensors, TC, SC, CAC, etc. in parallel arrangement; (parenthetic suffix) (2), (3), (4)=2, 3, or 4 catalysts, sensors, TC, SC, CAC, etc. in series arrangement; AIR / PAIR=secondary / pulsed air injection; CAC=charge air cooler; DDI / IDI=direct / indirect diesel injection; EGR=exhaust gas recirculation; EM=engine modification; O2S / HO2S=oxygen sensor / heated O2S; OC=oxidation catalyst; TC=turbocharger; TBI / MFI / SFI / DGI=throttle body / multi port / sequential / direct gasoline fuel injection; TRANS=transmission type; TWC=three way catalyst; SC=supercharger; TWC+OC=TWC plus OC in same container; (prefix) WU=warm-up catalyst;

CERTIFICATION EMISSION LEVELS & STANDARDS: bhp=brake hp; cc=cubic centimeter; CERT=certification emission level; CID=cubic inch displacement; CO=carbon monoxide; CO2=carbon dioxide; D+HS=diurnal plus hot soak evaporative emissions; DES_STD=manufacturer designated standard; EIM=equivalent inertia mass; EVAP=evaporative family; FEL=family emission limit; g=gram; gal=gallon; g/bhp-hr=grams per brake horsepower-hour; g/km=grams per kilometer; g/kW-hr=grams per kilowatt-hour; g/m2-day=grams per square meter per day; g/test=grams per test; HC=(total) hydrocarbons; hp=horsepower; hr=hour; K=1000 miles; kg=kilograms; km=kilometer; kW=kilowatt; L=liter; m2=square meter; mi=mile; mg=milligram; NOX=oxides of nitrogen; NMHC=non methane hydrocarbons; PEVAP=permeation evaporative family; STD=emission standard; *=not applicable; (superscript) o=degree (temperature); oF=degree Fahrenheit; oC=degree Celsius.

Attachment B

Supplemental Data Sheet -OHRV Evaporative Systems

EO # U-M-132-0048

Evaporative Family Description

Manufacturer	JOHN DEERE		Engine Family	JJDXX.586AAA
Model Year	2018		Evaporative Family	JJDXU0055MUV
Manufacturer Size (Check One)	Large √	Small		
Advanced Fuel System Credits	Yes	No √		
Compliance Option (Check One)	72-Hr. Diurnal √	24-Hr. Diurnal	Certify by Design Using Mfr.'s Data	Certify by Design Reference CARB EO
Durability Basis (Check One)	UL Vehicle √	DF		

Emission Data Vehicle (EDV)

Engine Family	JJDXX.586AAA	Evaporative Family	JJDXU0055MUV			EDV Model Year	2018
Fuel System	Carburetor		TBI				
	MFI	√	SFI		DFI		Other
Canister	Volume (cc)	800	W/C (grams)	55	N/A		
Purge Valve	Yes		No	√			
Pressure Vent Valve	Yes		No	√			

Durability Data Vehicle (DDV)

Engine Family	JJDXX.586AAA	Evaporative Family	JJDXU0055MUV			DDV Model Year	2018
Fuel System	Carburetor		TBI				
	MFI	√	SFI		DFI		Other
Canister	Volume (cc)	800	W/C (grams)	55			
Purge Valve	Yes		No	√			
Pressure Vent Valve	Yes		No	√			

72-Hour Diurnal Test

CERT (TOG/day)	0.938			
STD (TOG/day)	1			
EFEL	n.a.			
DF	n.a.			
Pass Fuel Leakage Tip Test?	Yes	√	No	

24-Hour Diurnal Test

CERT (TOG/day)							
STD (TOG/day)							
EFEL							
DF							
Vented Emissions Compliance. (Select One)	6.4.2.5. a)	NVL ≥ Vl_{total}?	Yes		No		
	6.4.2.5. b)	Use 2 psig PVV?	Yes		No		
	6.4.2.5. c)	No PVV release?	Yes		No		
Pass Fuel Leakage Tip Test?	Yes		No				

SVM Certify By Design

	Fuel Tank Perm.	Fuel Hose Perm.	Canister Working Capacity per Fuel Tank Volume
CARB Component EO Number			
CERT			
STD			
Pass Fuel Leakage Tip Test?	Yes		No

ABBREVIATIONS: CARB=California Air Resources Board; EO=Executive Order; TOG=total organic gases; CERT=certification level; STD=certification standard; EFEL=evaporative family emission limit; DF=deterioration factor; UL=useful life; EDV=emission data vehicle; DDV=durability data vehicle; TBI=throttle body fuel injection; MFI=multiport fuel injection; SFI=sequential multiport fuel injection; DFI=direct gasoline fuel injection; psig=pounds per square inch - gauge; W/C=canister gasoline working capacity; NVL=normalized vapor load.

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