California Environmental Protection Agency AIR RESOURCES BOARD	JOHN DEERE POWER SYSTEMS OF DEERE	EXECUTIVE ORDER U-R-004-0284-1 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-02-003;

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)
2007	7JDXL06.8106	4.5, 6.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter, Electronic Control Module, Charge Air Cooler	Tractor, Pump, Compressor, Generator Set, Other OEM Products

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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 (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
		FEL	-	-	4.7	-	0.30	-	-	-
		CERT	-	-	4.1	1.4	0.20	1	2	2

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any 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 2423 and 2427.

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.

This Executive Order hereby supersedes Executive Order U-R-004-0284 dated December 20, 2006.

Executed at El Monte, California on this 19 day of January 2007.

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **John Deere Power Systems of Deere and**
Engine category: **Nonroad CI**
EPA Engine Family: **7JDXL06.8106**
Mfr Family Name: **350HAD**
ss Code: **New Submission**

Attachment
Eo#U-R-0040284-1

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
4045HF285B	4045H	99.24@2400	77.90@2400	42.07@2400	339.24@1600	113.9@1600	40.99@1600	EM EC SPL
4045HL280	4045H	95.22@2300	74.30@2300	38.43@2300	288.35@1600	93.6@1600	33.67@1600	EM EC SPL

Engine Model Summary Form

Manufacturer: **John Deere Power Systems**
Engine category: **Nonroad CI**
EPA Engine Family: **7JDXL06.8106**
Mfr Family Name: **350HAD**
Process Code: **Running Change**

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
4045HT054	4045H	99.24@2250	67.80@2250	34.33@2250	258.85@1600	85.7@1600	30.83@1600	EM EC SPL

Engine Model Summary Form

Manufacturer: **John Deere Power Systems**

Engine category: **Nonroad CI**

EPA Engine Family: **7JDXL06.8106**

Mfr Family Name: **350HAD**

Process Code: **Running Change**

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
4045HT059A	4045H	75.10@2200	63.10@2200	31.22@2200	233.34@1500	78.3@1500	26.42@1500	EM EC SPL
4045HT059B	4045H	80.47@2200	66.90@2200	33.10@2200	252.22@1500	84.3@1500	28.42@1500	EM EC SPL
4045HT059C	4045H	84.49@2200	66.90@2200	34.57@2200	260.33@1500	87.4@1500	29.50@1500	EM EC SPL
4045HT059D	4045H	88.51@2200	72.40@2200	35.81@2200	274.34@1500	91.4@1500	30.85@1500	EM EC SPL
4045HT059E	4045H	99.24@2200	79.80@2200	39.49@2200	308.26@1500	99.2@1500	33.45@1500	EM EC SPL
4045HT061	4045H	99.24@2000	84.80@2000	38.14@2000	309.44@1500	101.6@1500	34.26@1500	EM EC SPL