California Environmental Protection Agency AIR RESOURCES BOARD	Navistar, Inc.	EXECUTIVE ORDER A-004-0350 New On-Road Heavy-Duty Motor Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: The following on-road motor vehicles with a manufacturer's GVWR over 14000 pounds are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

ENGINE DESCRIPTION								
MANUFACTURER	EXECUTIVE ORDER	MODEL YEAR	ENGINE FAMILY	ENGINE SIZES (L)	FUEL TYPE [1]	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS [2]	ECS & SPECIAL FEATURES [3]
NAVISTAR, INC.	A-004-0346	2009	9NVXH0390AGA	6.4	Diesel	Diesel	LHDD	DDI, TC, CAC,ECM, EGR, OC, PTOX

Gasoline, LPG or Alcohol Vehicles Only			VEHICLE DESCRIPTION				
EVAPORATIVE FAMILY	EVAPORATIVE UL (K)	FUEL TANK CAPACITY (gallons)	VEHICLE MODEL YEAR	Hybrid Engine Family	VEHICLE MAKE & MODELS	ENGINE (L)	ENGINE MODELS / CODES (rated power, in hp)
*	*	*	2009	9NVXH0390HGA	IC Bus	6.4	A230 / A230 (230), A215 / A215 (215), A200 / A200 (200)
*	*	*	*		*	*	*

* =not applicable; **GVWR**=gross vehicle weight rating; **13 CCR xyz**=Title 13, California Code of Regulations, Section xyz; **40 CFR 86.abc**=Title 40, Code of Federal Regulations, Section 86.abc; **L**=liter; **K**=1000 miles; **hp**=horsepower; **kw**=kilowatt;

[1] **CNG/LNG**=compressed/liquefied natural gas; **LPG**=liquefied petroleum gas; **E85**=85% ethanol fuel; **MF**=multi fuel a.k.a. **BF**=bi fuel; **DF**=dual fuel; **FF**=flexible fuel;

[2] **L/M/H HDD**=light/medium/heavy heavy-duty diesel; **UB**=urban bus; **HDO**=heavy duty Otto;

[3] ECS=emission control system; **TWC/OC**=three-way/oxidizing catalyst; **WU (prefix)** =warm-up catalyst; **DPF**=diesel particulate filter; **HO2S/O2S**=heated/oxygen sensor; **HAFS/AFS**=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); **TBI**=throttle body fuel injection; **SFI/MFI**=sequential/multi port fuel injection; **DGI**=direct gasoline injection; **GCARB**=gaseous carburetor; **IDI/DDI**=indirect/direct diesel injection; **TC/SC**=turbo/super charger; **CAC**=charge air cooler; **EGR**=exhaust gas recirculation; **PAIR/AIR**=pulsed/secondary air injection; **SPL**=smoke puff limiter; **ECM/PCM**=engine/powertrain control module; **EM**=engine modification; **2 (prefix)**=parallel; **(2) (suffix)**=in series (2004may26)

Following are: 1) the FTP exhaust emission standards or family emission limit(s) as applicable under 13 CCR 1956.8 ; 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [ ] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.8 are in parentheses.) [4]

	NMHC		NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.14	0.14	*	*	*	*	15.5	15.5	0.01	0.01	*	*
FEL	*	*	1.05	1.05	1.2	1.2	*	*	*	*	*	*
CERT	0.03	0.000	0.92	0.80	1.1	0.9	1.9	0.1	0.000	0.002	*	*
NTE	0.21		1.58		1.8		19.4		0.02		*	

[4] **g/bhp-hr**=grams per brake horsepower-hour; **FTP**=Federal Test Procedure; **EURO**=Euro III European Steady-State Cycle; **NTE**=Not-to-Exceed emission limit; **STD**=standard or emission test cap; **FEL**=family emission limit; **CERT**=certification level; **NMHC/HC**=non-methane/hydrocarbon; **NOx**=oxides of nitrogen; **CO**=carbon monoxide; **PM**=particulate matter; **HCHO**=formaldehyde;

BE IT FURTHER RESOLVED: Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: The certification levels listed above are determined in accordance with the "California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes, adopted October 24, 2002".

BE IT FURTHER RESOLVED: For the listed vehicle models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1976(b)(1)(F) {evaporative emission standards}, 13 CCR 2035 et seq. (emission control warranty), and 13 CCR 2235 [fill pipes and openings of motor vehicle fuel tanks]. (The braces { } are for gasoline, LPG or alcohol fueled vehicles only. The brackets [ ] are for gasoline or alcohol fueled vehicles only.)

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

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this 24 day of April 2009.

Annette Hebert, Chief
Mobile Source Operations Division

Attachment 1 of 1

EO# A-004-0350

Navistar / Enova Charge Depleting Hybrid School Bus
CARB Certification Submission – Test Narrative

Applications - FOI Distribution

School and Commercial Bus applications with a wheel base range of 218"-273"

- 2008 IC Bus CE Series Hybrid School Bus Equipped with the Enova Charge Depleting Hybrid Drive System GVW 14,001-26,000 lbs.
- 2009 IC Bus CE Series Hybrid School Bus Equipped with Enova Charge Depleting Hybrid Drive System GVW 14,001-26,000 lbs.
- 2008 IC Bus CE Series Commercial Bus Equipped with the Enova Charge Depleting Hybrid Drive System GVW 14,001-26,000 lbs.
- 2009 IC Bus CE Series Commercial Bus Equipped with the Enova Charge Depleting Hybrid Drive System GVW 14,001-26,000 lbs.

Powertrain Specifications

Make	Navistar
Model	MaxxForce 7
HP and Torque Rating	215 HP 560 ft-lb 215 HP 560 ft-lb 230 HP 620 ft-lb
Engine Family	9NVXH0390AGA LHDD
ESS Exempt	School Bus – YES Commercial Bus – NO
Transmission	Allison 2500
Axle Ratio	5.57:1 as tested -
Wheels	11R22.5 AH12

Alternative axle ratio and wheel combinations – provided separately

modified & Submitted on 4/23/2009
By:
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NAVISTAR, INC.