California Environmental Protection Agency AIR RESOURCES BOARD

CUMMINS, INC.

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC) Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-45-9; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and the manufacturer, and any modifications thereof to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR ENGINE FAMILY		ENGINE SIZE (liter)	FUEL TYPE (CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas)	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS (L/MH HDD=light/medium/heavy heavy-dut [HD] diesel; UB=urban bus; HDO=HD Otto)				
2002	2CEXH0359BBF	5.9	LPG	Diesel	MHDD				
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		ENGINE MODELS / CODES (rated power in horsepower, hp)							
OC, HO2S, TC, CAC, TBI, PCM		B5.9-195LPG / 8018 (195 hp)							
	ree-way/oxidizing catalyst laIMFI DDI/IDI=direct /inc AIR=pulsed AIR SPL=smol		/arm-up cat. O2S=oxygen sensor HO2S=heated ection TC/SC=turbo/super charger CAC=char ECM/PCM=engine /powertrain control module	O2S TBI=throttle bo ge air cooler EGR= EM=engine modificat	dy fuel injection MFI=multi port fuel injection exhaust gas recirculation AIR=secondary air tion 2 (prefix)=paraile! (2) (suffix)=in series				

The following are the exhaust emission standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for this engine family in grams per brake horsepower-hour (g/bhp-hr) for hydrocarbon (HC) or non-methane HC (NMHC), oxides of nitrogen (NOx), or NMHC+NOx, carbon monoxide (CO) [except that "diesel" CO certification compliance may have been demonstrated pursuant to Code of Federal Regulations, Title 40, Part 86, Subpart A, Section 86.091-23(c)(2)(i) in lieu of testing], particulate matter (PM), and formaldehyde (HCHO) under the "Federal Test Procedure" (FTP) (Title 13, California Code of Regulations, (13 CCR) Section 1956.1 (urban bus) or 1956.8 (other than urban bus)), and under the "Euro III Test Procedure" (EURO) in the Settlement Agreement, including a EURO's "Not-to-Exceed" NOx standard: (The emission standards and certification levels for default operations permitted under 13 CCR Section 1956.1 or 1956.8 are in parentheses.)

* = not applicable	НС		NMHC		NO				EURO'S NOT-TO-EXCEED NOx STD *					
					NOx		NMHC+NOx		со		PM		нсно	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
(DIRECT) STD	*	•	1.2	•	2.5	+	*	•	15.5	+			FIF	EURU
AVERAGE STD	*		+	+	*	<u>+</u>	•		10.0		0.10			· ·
FEL	*		*	*	•				•		*	*	*	*
CERT				<u>├</u>				*	*	*	*	•	*	*
			0.8	*	2.3	•	*	*	1.0		0.01		*	•

BE IT FURTHER RESOLVED: That 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: That at the manufacturer's request, the listed engine models have been certified to the FTP optional NOx reduced emission standard listed above pursuant to 13 CCR Section 1956.1 or 1956.8.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR Sections 1965 (emission control labeling), and 2035 et seq. (emission control system warranty).

BE IT FURTHER RESOLVED: That the listed engine models are conditionally certified subject to the following conditions: (1) The Settlement Agreement is in effect; and, (2) The manufacturer is in compliance with all applicable certification requirements of the Settlement Agreement and any modifications thereof.

Engines certified under this Executive Order shall conform to all applicable California emission regulations and all requirements under the Settlement Agreement and any modifications thereof. The Bureau of Automotive Repair will be notified by copy of this Executive Order. **This Executive Order will not be valid for engines produced on or after October 2002.**

Executed at El Monte, California on this __________ day of December 2001.

R. B. Summerfield, Chief Mobile Source Operations Division