California Environmental Protection Agency AIR RESOURCES BOARD	VOLVO CAR CORPORATION	EXECUTIVE ORDER A-018-0124 New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515-39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	TEST GROUP	VEHICLE TYPE (PC=passenger car; LDT=light-duty truck; MDV=medium-duty vehicle; LVW=loaded vehicle weight; ALVW=adjusted LVW)	EXHAUST EMISSION STANDARD CATEGORY (LEV=low emission vehicle; TLEV= transitional LEV; ULEV=ultra LEV; SULEV=super ULEV)	EXHAUST / EVAPORATIVE USEFUL LIFE (UL) (miles)	FUEL TYPE (CNG/LNG=compressed/ liquefied natural gas; LPG=liquefied petroleum gas)
2004	4VVXV2.43S2N	PC	LEV II SULEV	150K / 150K	Gasoline

No.	EVAPORATIVE FAMILY (EVAF)	No.	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS (ECS)	* = not applicable
1	4VVXR0130ZER	1	TWC(2), HO2S, HAFS, SFI, DOR, OBD (P)	
2	*	2	*	
3	*	3	*	

OC/TWC=oxidizing/3-way cat. ADSTWC=adsorbing TWC WU= warm-up cat. O2S/HO2S=oxygen sensor/heated O2S AFS/HAFS=air-fuel ratio sensor/heated AFS EGR=exhaust gas recirculation AIR/PAIR=secondary air injection/pulsed AIR MFI/SFI= multiport fuel injection/sequential MFI TBI= throttle body injection TC/SC=turbo /super charger CAC=charge air cooler DOR=direct O3 reduction OBD (F) / (P)=full /partial on-board diagnostic prefix 2=parallel (2) suffix=series

EVAF No.	ECS No.	ENGINE SIZE (L)	VEHICLE MAKES & MODELS	VEHICLES SUBJECT TO SFTP STANDARDS ARE UNDERLINED	ABBREVIATIONS:
1	1	2.4	Volvo: V70 FWD, S60 FWD		

The exhaust and evaporative emission standards (STD) and certification emission levels (CERT) for the listed vehicles are as follows (compliance with the 50 °F testing requirement (for TLEV, LEV, ULEV, SULEV) may have been met based on the manufacturer's submitted compliance plan in lieu of testing). Any debit in the manufacturer's "NMOG Fleet Average" (PC and LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

NMOG FLEET AVERAGE [g/mi]		NMOG @ RAF= * CH4 RAF = *		NMOG or NMHC STD [g/mi]	CH4=methane NMOG=non-CH4 organic gas NMHC=non-CH4 hydrocarbon CO=carbon monoxide NOx=oxides of nitrogen HCHO=formaldehyde PM=particulate matter RAF=reactivity adjustment factor 2/3 D [g/test]=2/3 day diurnal+hot-soak RL [g/mi]=running loss ORVR [g/gallon dispensed]=on-board refueling vapor recovery g=gram mg=milligram mi=mile K=1000 miles F=degrees Fahrenheit SFTP=supplemental federal test procedure									
CERT	STD	NMOG CERT [g/mi]	NMHC CERT [g/mi]		CO [g/mi]		NOx [g/mi]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/mi]	
					CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
0.046	0.053													
	@ 50K	*	*	*	*	*	*	*	*	*	*	*	*	*
	@ UL	0.004	*	0.010	0.1	1.0	0.01	0.02	0.0	4	*	*	0.01	0.03
	@ 50°F & 4K	0.006	*	0.020	0.1	1.0	0.005	0.02	0.0	8	*	*	*	*

CO [g/mi] @ 20°F & 50K		SFTP 1 = @ 4K (SULEV, ULEV, LEV) or 50K (Tier 1, TLEV) SFTP 2 = @ UL (Tier 1, TLEV)		NMHC+NOx [g/mi] (composite)		CO [g/mi] (composite)		NMHC+NOx [g/mi] [US06]		CO [g/mi] [US06]		NMHC+NOx [g/mi] [SC03]		CO [g/mi] [SC03]	
				CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	0.4		SFTP 1	*	*	*	*	0.01	0.14	1.7	8.0	0.02	0.20	0.1	2.7
STD	10.0		SFTP 2	*	*	*	*	*	*	*	*	*	*	*	*

@ UL	EVAPORATIVE FAMILY 1				EVAPORATIVE FAMILY 2				EVAPORATIVE FAMILY 3				EVAPORATIVE FAMILY 4			
	3-D	2-D	RL	ORVR	3-D	2-D	RL	ORVR	3-D	2-D	RL	ORVR	3-D	2-D	RL	ORVR
CERT	0.30	0.27	0.01	0.06	*	*	*	*	*	*	*	*	*	*	*	*
STD	0.35	0.35	0.05	0.20	*	*	*	*	*	*	*	*	*	*	*	*

BE IT FURTHER RESOLVED: That for the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.1 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

BE IT FURTHER RESOLVED: That the listed vehicle models are permitted intermediate in-use compliance standards pursuant to 13 CCR Section 1961(a)(10). The listed vehicle models are granted a 0.0026 g/mi NMOG credit for all certification and in-use testing pursuant to 13 CCR Section 1961(a)(12) [direct ozone reduction].

BE IT FURTHER RESOLVED: That the manufacturer has requested that the listed vehicles be determined to qualify for a baseline partial zero emission vehicle (PZEV) allowance of 0.2 under 13 CCR Section 1962(c)(2) as amended by the 2001 Zero Emission Vehicle (ZEV) Amendments. A June 11, 2002 preliminary injunction issued by a federal district court and currently on appeal enjoins the Executive Officer from enforcing the 2001 ZEV Amendments with respect to the sale of new motor vehicles in the 2003 or 2004 model years pending final resolution of the litigation. In case the preliminary injunction is lifted or the PZEV status of the vehicles becomes relevant in the context of subsequent amendments to the ZEV regulations (depending on the credit provisions of such amendments), the undersigned has determined that the listed vehicles would qualify for a baseline PZEV allowance of 0.2 under 13 CCR Section 1962(c)(2) if those provisions could be enforced. Nothing in this Executive Order is intended as enforcement of any of the 2001 ZEV Amendments for the 2003 or 2004 model years.

Vehicles certified under this Executive Order shall 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 15TH day of May 2003.

Allen Lyons, Chief
Mobile Source Operations Division