

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-18-106
Relating to Certification of New Motor Vehicles

VOLVO CAR CORPORATION

Pursuant to the authority vested in the Air Resources Board by the 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-45-9;

IT IS ORDERED AND RESOLVED: That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below:

Model Year: 2001

Vehicle Type: Passenger Car

Exhaust Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Test Group: 1VXV2.78T6T

Engine Displacement: 2.8 Liters

Evaporative Family: 1VXR0133AAA

Special Features and Exhaust Emission Control Systems:

- Sequential Multiport Fuel Injection
- Three Way Catalytic Converter
- Heated Oxygen Sensors (two)
- Turbocharger
- Charge Air Cooler

Models Covered:

Volvo S80 T6, S80 T6 Executive

The exhaust certification emission levels and standards, in grams per mile, of non-methane organic gases (NMOG) or non-methane hydrocarbon (NMHC), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) for the listed vehicle models are as follows. The exhaust certification emission levels and standards under the Supplemental Federal Test Procedure (SFTP) US06 and SC03 tests are also listed below. The NMOG exhaust certification emission levels include application of the reactivity adjustment factor (RAF) as specified.

The evaporative hydrocarbon (HC) certification emission levels and standards for three-day diurnal plus hot soak (3D) and two-day diurnal plus hot soak (2D) in grams per test, running loss (RL) in grams per mile, and onboard refueling vapor recovery (ORVR) in grams per gallon of fuel dispensed, for the listed vehicle models are as follows.

| <u>Type of Emissions</u> | <u>Miles</u> | <u>Certification Level</u> | <u>Certification Standards</u> |
|----------------------------------|--------------|----------------------------|--------------------------------|
| <u>EXHAUST @ NMOG RAF = 0.98</u> | | | |
| NMOG fleet average | | 0.075 (projected) | 0.070 |
| NMOG | 50,000 | 0.083 | 0.125 |
| NMOG | 100,000 | 0.092 | 0.156 |
| CO | 50,000 | 1.5 | 3.4 |
| CO | 100,000 | 1.7 | 4.2 |
| NOx | 50,000 | 0.04 | 0.4 |
| NOx | 100,000 | 0.05 | 0.6 |
| NOx (highway) | 50,000 | 0.00 | 0.5 |
| NOx (highway) | 100,000 | 0.00 | 0.7 |
| HCHO | 50,000 | 0.001 | 0.015 |
| HCHO | 100,000 | 0.001 | 0.018 |
| CO (20°F) | 50,000 | 5.6 | 10.0 |
| NMOG (50°F) | 4,000 | n/a | 0.250 |
| CO (50°F) | 4,000 | n/a | 3.4 |
| NOx (50°F) | 4,000 | n/a | 0.4 |
| HCHO (50°F) | 4,000 | n/a | 0.030 |
| CO (SFTP SC03) | 50,000 | 0.3 | 3.0 |
| CO (SFTP SC03) | 100,000 | 0.4 | 3.7 |
| CO (SFTP US06) | 50,000 | 1.0 | 9.0 |
| CO (SFTP US06) | 100,000 | 1.2 | 11.1 |
| NMHC+NOX (SFTP Composite) | 50,000 | 0.08 | 0.65 |
| NMHC+NOX (SFTP Composite) | 100,000 | 0.09 | 0.91 |
| <u>EVAPORATIVE</u> | | | |
| HC-2D | 100,000 | 1.8 | 2.5 |
| HC-3D | 100,000 | 0.9 | 2.0 |
| HC-RL | 100,000 | 0.00 | 0.05 |
| HC-ORVR | 100,000 | 0.001 | 0.20 |

BE IT FURTHER RESOLVED: That any debit in the manufacturer's NMOG fleet average compliance plan shall be equalized as required by the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the manufacturer is certifying the listed vehicle models with a partially complying on-board diagnostic system for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(6.2) ("Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines").

BE IT FURTHER RESOLVED: That the 50° Fahrenheit testing requirement for the listed vehicle models has been met based on the compliance plan submitted by the manufacturer in lieu of actual testing.

BE IT FURTHER RESOLVED: That for the listed vehicle models, the manufacturer has attested to compliance with the following California emission regulations and requirements. Vehicles certified under this Executive Order shall conform to all applicable California emission regulations and requirements.

- Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks (Title 13, California Code of Regulations, Section 2235)
- Motor Vehicle Emission Control and Smog Index Label Specifications (Title 13, California Code of Regulations, Section 1965)
- Emission Control System Warranty (Title 13, California Code of Regulations, Sections 2035 et seq.)
- High-Altitude Requirements and California Inspection and Maintenance Emission Standards (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles)

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

Executed at El Monte, California this 13th day of July 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division