

## Measures Taken by Each City Kuala Lumpur

### INTRODUCTION

#### Main sources of air pollution

- (i) Motor vehicles Emissions
- (ii) Industrial emissions
- (iii) Non Point Sources Emissions (open burning activities/  
forest fires)

In Klang Valley, 70% of the air pollution contributed by motor vehicle emissions.

Number of motor vehicles on road keeps on increasing at the rate of 10% per annum.

#### Malaysia : Number of Vehicles (1999)

Diesel Vehicles	1.0 millions	10%
Petrol Vehicles	8.9 millions	90%
TOTAL	9.9 millions	100%

Motorcycles	5.1 millions	52%	
Private vehicles	3.8 millions	38%	
Commercial vehicles	1.0 millions	10%	Buses(4.5%) Taxis(5.25%) Vehicles for hire(0.95%) Vehicles to transport goods (60.6%) Others(28.70%)
TOTAL	9.9 millions	100%	

#### Mobile sources

- (i) gaseous emission (diesel & petrol engines)
- (ii) noise

Excessive emission of dark/black smoke from diesel vehicles are due to:

- (i) poor maintenance of vehicles
- (ii) fuel quality

**REGULATIONS FOR  
CONTROLLING GASEOUS EMISSION AND NOISE  
FROM MOTOR VEHICLES**

<b>YEAR</b>	<b>ACT/REGULATIONS</b>	<b>ENFORCING DATE</b>
<b>1977</b>	<b>ROAD TRAFFIC ORDINANCE 1958 Motor Vehicle(Control of Smoke &amp; Gas Emission)Rules 1977 (Under Ministry of Transport,M'sia)</b>	<b>This rules were repealed in 1996 and replaced by a new regulation made under the Environmental Quality Act 1974</b>
	<b>ENVIRONMENTAL QUAKITY ACT1974 (Under Department of Environment, Ministry of Science, Technology &amp; the Environment, M'sia)</b>	
<b>1985</b>	<b>Environmental Quality ( Control of Lead Concentration in Motor Gasoline) Regulations 1985 (P.U.(A)296/1985)</b>	<b>1 January 1986</b>
<b>1987</b>	<b>Environmental Quality(Motor Vehicle Noise) Regulations 1987</b>	<b>16 July 1987</b>
<b>1996</b>	<b>Environmental Quality (Control of Emission from Diesel Engines) Regulations 1996 (P.U.(A) 429/1996)</b>	<b>1 September 1996</b>
<b>1996</b>	<b>Environmental Quality (Control of Emission from Petrol Engine) Regulations 1996 (P.U.(A) 543/1996)</b>	<b>1 November 1996</b>

**CONTROL OF SMOKE EMISSION FROM MOBILE SOURCES**  
(Refer Annex for details)

DIESEL ENGINES	PETROL ENGINES												
<b>CONTROL DURING MANUFACTURING STAGE</b> Manufactures to ensure that all motor vehicles comply with the agreed/adopted international standard ( Test to be conducted by assemblers/manufactures - certificate provided)													
UN/ECE 15.04 UN/ECE 24.03 UN/ECE 49.02 EEC 93/59 Acceptance of equivalent or more stringent standard)	91/441/EEC 93/59/EEC 94/12/EEC Acceptance of equivalent or more stringent standard)												
<b>CONTROL DURING THE USE OF MOTOR VEHICLE</b> (Apply to every motor vehicle irrespective of whether it is in use or stationary, or in any bus terminal, taxi stand or private premises or on any private road)													
Emission Std. For Diesel Engine in Use (refer Annex I)  (i) <u>Maximum concentration of smoke shall not exceed Ringlemann No. 2 of the Ringelmann Smoke Chart for a continuous period of more than 10 seconds</u>	Emission Std. For Petrol Engine in Use(refer Annex )  <table align="center"> <thead> <tr> <th></th> <th align="center">CO</th> <th align="center">(% )</th> <th align="center">CH (ppm)</th> </tr> </thead> <tbody> <tr> <td>Existing Model</td> <td align="center">4.5</td> <td></td> <td align="center">800</td> </tr> <tr> <td>New Model</td> <td align="center">3.5</td> <td></td> <td align="center">600</td> </tr> </tbody> </table> Only awareness campaign currently being undertaken. Not yet enforced.		CO	(% )	CH (ppm)	Existing Model	4.5		800	New Model	3.5		600
	CO	(% )	CH (ppm)										
Existing Model	4.5		800										
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**CONTROL OF EMISSION FROM DIESEL ENGINES**

- **Motor vehicles –main contributor to the urban air quality**  
Thus main enforcement activity in DOE WP KL
- **In 2000,149 enforcement campaigns done by DOE WP KL and visual observation/inspection to 17,095 motor vehicles**
- **Emission Std=not more than 50 HSU (Hartridge Smoke Unit)/%**
- **Methods:**
  - ( ) **Area Watch And Sanction Inspection(AWASI)(Patrolling)**  
AWASI team will move around a specific / identified areas and will stop and carry out smoke test on any diesel-powered motor vehicle which is observed to emit excessive dark/black smoke.
  - ( ) **Kerb side enforcement programme (nearby a specific toll plaza)or**  
Hartridge Smoke Meter (Model MK ) (analog) or AVL smoke meter(digital)  
Compound(maximum)  
RM2,000.00(Company) & RM5000.00(Driver)
- **If case filed in court: Fine RM100,000 or 5 years imprisonment or both(Section22(3)EQA 1974)**
- **Implementation (Refer flow - chart):**  
shall not exceed 50 HSU  
test results shall be recorded in a Test Certificate (Sixth Schedule)

Measures Taken by Each City Kuala Lumpur

**Prohibition Order issued-prohibiting further operation of any motor vehicle if**

- ( ) test results exceed 70 HSU or other equivalent smoke units**
- ( ) has contravened the acceptable conditions within the period of 3 months preceding smoke test**

**Note:**

**After examining the smoke test results, status of compliance and air monitoring returns (taking into account other polluting sources and meteorological data) - the need to take more stringent action , DOE may issue a prohibition order against any motor vehicle emitting or capable of emitting smoke which exceeds 50 HSU or other equivalent smoke units.**

**Duration of time given –10 days (to remedy the defects)& re testing (smoke testing by DOE) and the prohibition order may be withdrawn (with a written approval of DG)**

**Note:**

**Prohibition Order should be securely attached to a conspicuous spot on the windscreen of the motor vehicle & should not be remove except with the written approval from the DG**