



Industry Perspective on the Status of I/M in Asia

Regional Workshop for Reducing Vehicle
Emissions ; Strengthening Inspection and
Maintenance

7 - 9 November 2001, Chongqing, PRC

Overview of I/M Programs in Asia

- China

- New Clean Air Act
- SEPA developing national policy
- Major Cities Developing Upgraded Programs
 - Beijing, Shanghai, Guangzhou, Chongqing...
 - Leaning Toward ASM, Upgradeable to VMAS
 - Some Remote Sensing
 - Diesel Lug Down Test

Overview of I/M Programs in Asia

- Hong Kong
 - Mandatory Idle Test For Older Cars
 - Diesel Opacity Loaded Test
 - Measure Power
 - Measure Opacity
 - Smoke Spotters
- Taipei China
 - Diesel Opacity Loaded Test
 - Idle Test for Cars
 - Remote Sensing (CO & HC Only)

Overview of I/M Programs in Asia (Cont'd)

- Philippines
 - 8 Zones, 4 Contractors
 - Contracts Expected Soon
- Bangkok, Thailand
 - Diesel Trucks & Taxis – centralized (old equipment)
 - Light Duty & MC – decentralized
 - Diesel Trucks & Buses – free acceleration (opacity)
 - Cars, MC – Simple Idle (HC&CO)
 - Possible WB Upgrade awaiting Gov't Decision

Overview of I/M Programs in Asia (Cont'd)

■ India

- All Veh. (ex 2/3 Wheelers) Every 6 Months
- Decentralized
- Annual Centralized Fitness Check For Commercial Veh. Only
- Idle Test for petrol Vehicles

■ South Korea

- Decentralized Idle Test
- Investigating Loaded Test

Light & Heavy Duty Diesel Tests

- Major Problems: NO_x, PM, Smoke
- Hong Kong A Good Model
 - Loaded Test
 - Measure Power
 - Measure Opacity
- Could Be Improved
 - Transient Test
 - Measure PM, NO_x

Light Duty Gasoline Tests

- Major Problems: CO, HC and NOx
- Beijing A Good Model
 - ASM Test
 - Dyno Capable of Shift to Transient Test
 - Remote Sensing

Motorcycle/Scooter Test

- Major Problems: Smoke, PM, HC (2 Stroke), CO
- No Good Model at Present
 - Probably Need Loaded Test
 - No Widely Adopted Test Available

Remote Sensing

- HC, CO₂ & CO Well Established
- NOx was Second Wave
- Newly Designed For Opacity
- Other Important Components
 - Speed & Acceleration Bar
 - Weather Station
 - Camera Module
- Auditing, Clean Screening, Dirty Screening

Other Issues

- Political Commitment
- Institutional Support
- Enforcement (e.g., Registration denial)
- Incentives (e.g., Insurance denial)