SEPA
Vehicle Emission Control Center

国家环境保护总局
机动车排污监控中心

# China's Vehicle Emission Management and Policies & Priorities

# 中国机动车排放管理政策及优先考虑的问题

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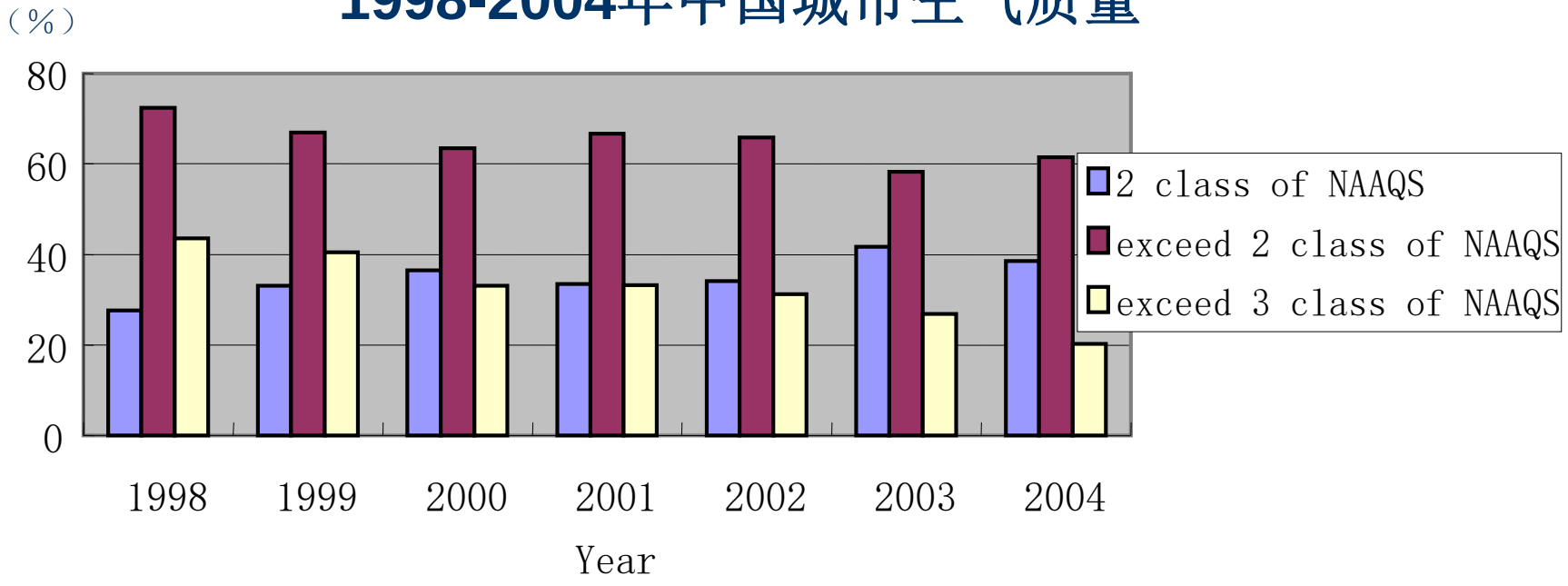
## Part 1

# The Situation of Chinese Vehicle Pollution
# 中国机动车污染状况

# 1.1 Air Quality of Chinese Cities

## 中国城市空气质量

**Air Quality of Chinese Cities year 1998-2004**
**1998-2004年中国城市空气质量**



- **In 2004, 210 cities exceeded the Class 2 limit values of the National Ambient Air Quality Standard (NAAQS) within the total 342 monitored cities. In which 69 cities exceeded the Class 3 limit.**

  2004年, 受监测的342个城市中有210个城市的空气质量超过了国家环境空气质量标准的二级标准。其中有69个城市超出了三级标准。

- **There was 2/3 population in urban areas where air quality exceeded the limits of NAAQS..**

  2/3的城市居民生活在空气质量不达标的环境中。

- **The major problems include SO2 and PM.**

  SO2和颗粒物成为主要的问题。

- **In the past 10 years, air pollution in urban areas caused by coal burning had been under control in most regions in China.**

  过去10年中，中国大部分区域中由于燃煤而造成的城市空气污染已逐步得到控制。

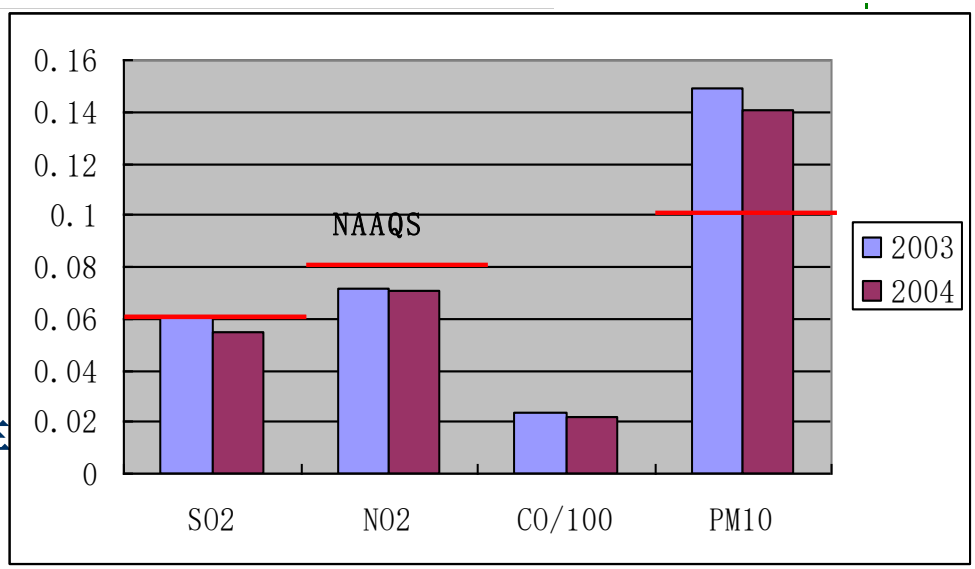
- **Due to the fast growth of vehicles population in the recent 10 years, esp. in large cities, air pollution from vehicle emission has become increasingly significant. Days and hours NOx and O3 concentrations exceeding NAAQS increased continuously; most diesel vehicles smoked much; road dust resuspended by traffic;high concentrations of CO, HC and SO2 along roadsides.**

  近10年来，由于机动车保有量的快速增长，大城市中机动车污染显著恶化。 NOx 和 O3 浓度持续超标；柴油车冒黑烟问题严重；道路交通扬尘难以解决；道路两侧CO、HC和SO2污染严重。

# Air Pollution Situation in Beijing City
# 北京空气污染状况

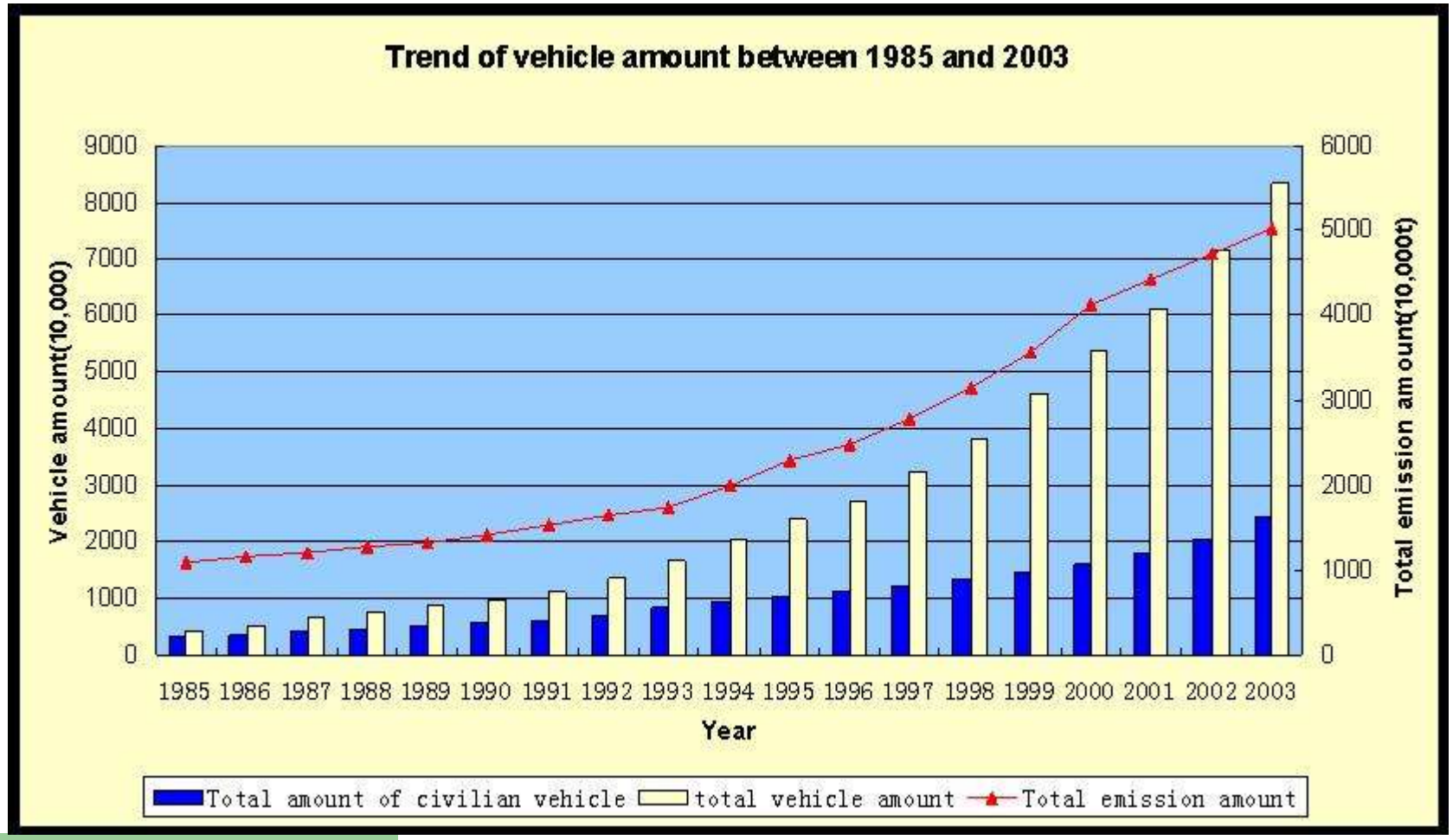
**In summer and autumn 2004, Beijing had 67 days and 285 hours with ozone exceeding NAAQS, 10 days and 30 hours more than 2003.**

2004年夏秋两季，北京有67天、285小时臭氧超标，比2003年同期多了10天、30小时。



# 1.2 Vehicle Pollution Status in China

## 中国机动车污染状况



- About 50% of $NO_X$ comes from vehicles in large cities;

  大城市中机动车对$NO_X$贡献率约为50% ；

- CO exceeds the NAAQS in heavy traffic urban areas;

  城市交通拥堵地区CO超标；

- There is a potential threaten of photochemical smog in large cities；

  城市中存在发生光化学烟雾污染事件的危险；

- Vehicle emission has become the major sources of air pollutants in the large cities.

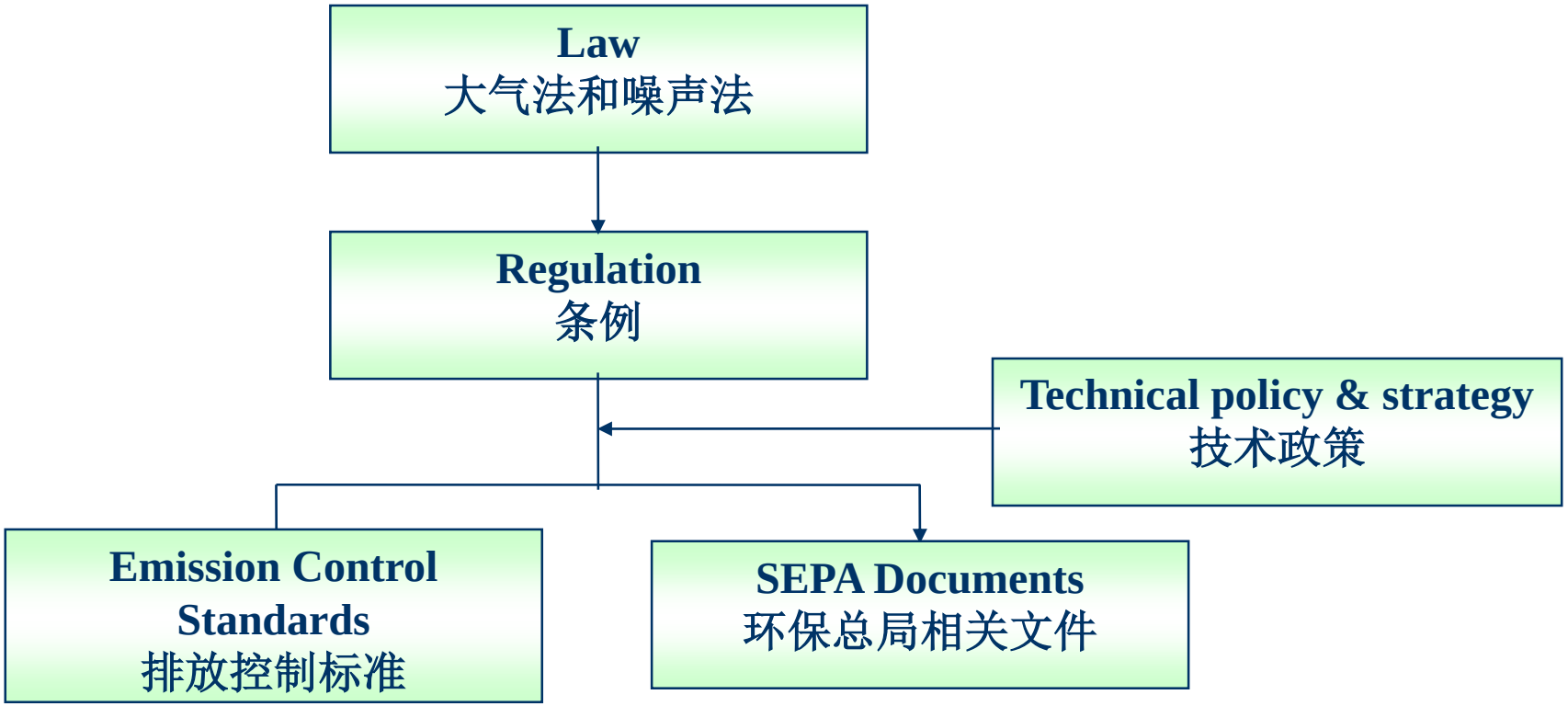
  大城市中机动车排放已成为主要大气污染源。

Part 2

# The Vehicle Pollution Control in China

# 中国机动车污染控制

# 2.1 Regulations, Standards and Policies 政策、法规和标准



- “The Law of Air Pollution Prevention of the People’s Republic of China” and “The Law of Ambient Noise Pollution Prevention of the People’s Republic of China” are the legal basis of vehicle emission pollution control work in China.

《中华人民共和国大气污染防治法》和《中华人民共和国噪声污染防治法》是中国机动车污染控制的根本依据。

- **Technical policies for emission control of gasoline vehicles, motorcycles and diesel vehicles have been made and implemented.**

  目前已经制订并执行了汽油车、柴油车和摩托车的技术政策。

- **Currently SEPA is working on the constitution of the Regulations of Vehicle Emission Pollution Control and Supervision.**

  国家环保总局现在正致力于制订机动车污染物排放控制和监督管理条例。

● Since1983, SEPA has published and revised 34 standards of vehicle-emitted pollutants control, covering light-duty vehicle, heavy-duty vehicle, heavy-duty engine, motorcycles, mopeds and tri-wheel & low speed vehicle（agricultural transport vehicles）, etc.

自1983年起，国家环境保护总局已经发布和修订了34个机动车污染物排放控制标准，涵盖了轻型汽车、重型汽车、重型发动机、摩托车、轻便摩托车、三轮车和低速载货汽车（农用运输车）等。

● **These standards include new vehicles and in-use vehicle.**

包括新车标准和在用车标准。

● **Comprehensive vehicle emission control standard system has been gradually established.**

机动车排放控制标准体系已基本建立。

# 2.2 Emission Control for New Vehicles 新车排放控制

- The "Technical Strategy of Pollution Control for Motor Vehicles" was issued in June 1999 by SEPA, MOST.

1999年6月，国家环境保护总局和科技部联合制订并发布了"汽车污染防治技术政策"。

The Emission Control Target for LDV, HDV and MC was：

其中对轻、重型汽车和摩托车的污染控制目标是：

☆**EURO I, 2000-2001；**

2000-2001年，相当于欧洲1号标准

☆**EURO II, 2004-2005；**

2004-2005年，相当于欧洲2号标准

☆**To meet the international Emission control level in about 2010.**

2010年，与国际排放控制水平接轨

# Management for New Vehicle and Engine

# 新生产发动机及汽车的管理要求

- **Without SEPA's approval, vehicles & engines are not allowed to be produced, sold and registered.**

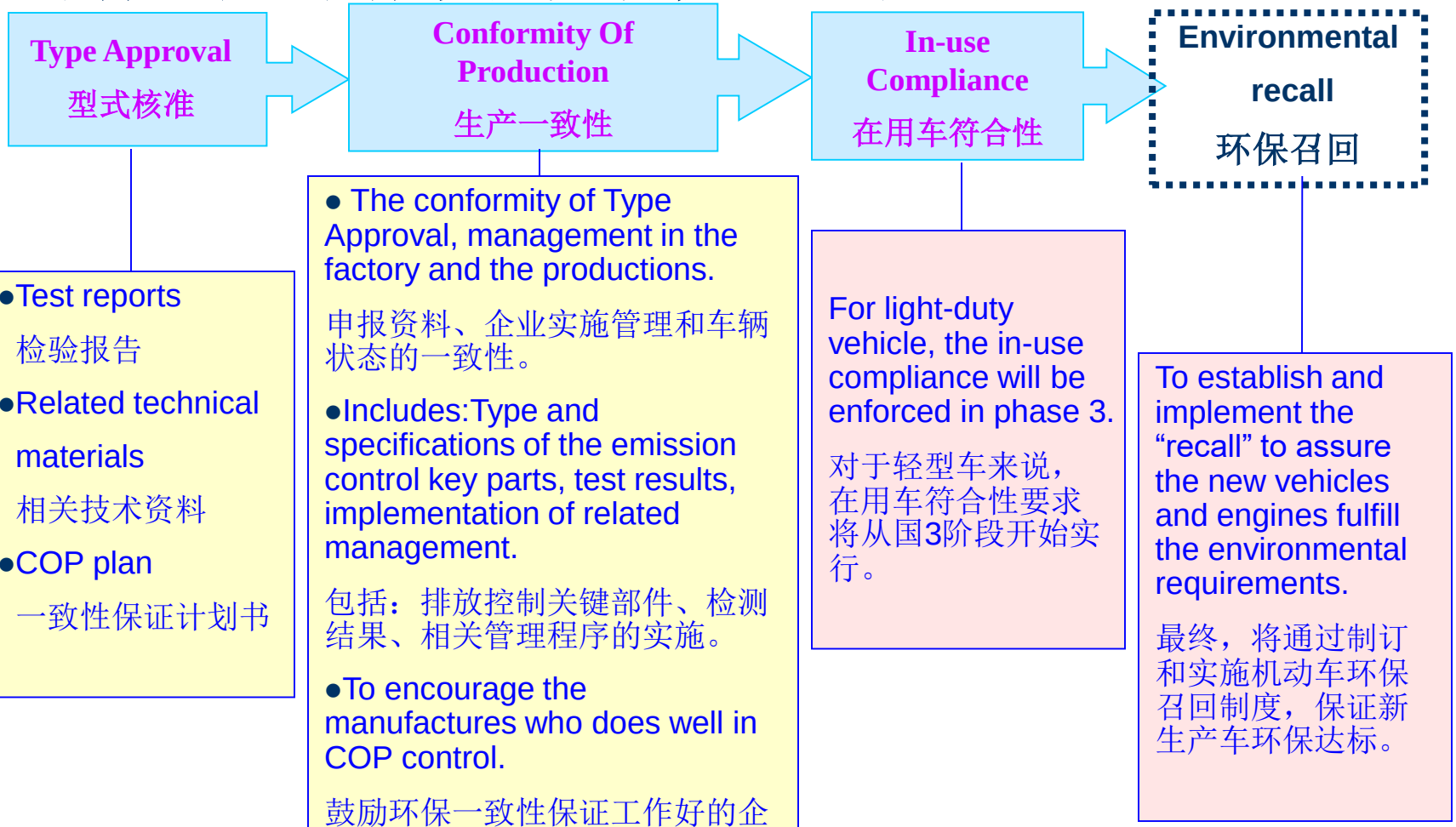
未经国家环境保护总局批准发布的车、机型不得生产销售和注册。

- **The catalog of approved environmental protection type approval vehicles & engines is issued by SEPA monthly.**

国家环保总局每月发布通过环保型式核准的车、机型目录。

# • SEPA's Environmental Protection Requirements:

# 环保总局对新车和发动机的要求包括：



# 2.3 Emission Control for in-use Vehicle 在用车排放控制

- Periodic inspection of in-use vehicle is supervised by provincial and local environmental protection bureaus.

  由省级及地方环境保护主管部门实施在用车的定期检验。

- Spot check of in-use vehicle is carried out by local environmental protection agencies

  由地方环境保护主管部门实施在用车的抽查检验。

- **Enhance the measurement method of the vehicle emission check**

加强了在用车排放的检测方法；

- **Stricter monitoring and management for the vehicle emission inspection stations**

对在用车排放检测站加强管理和监督；

- **Promoting the establishment of the environmental label system**

积极推动建立环保标志制度；

- **Establishment of the national vehicle emission data reporting system, including city-province-nation 3 Class**

建立国家机动车排放数据报告制度，形成城市—省—国家的3级报告体系。

# 2.4 Environmental Requirements for Vehicle Fuels
# 车用燃料的环保要求

- **Drafting and Revising 'Hazardous Materials Control Standard for Motor Vehicle Gasoline - GWKB1-1999'**

  制订和修订车用汽油有害物质控制标准

- **To promote the Chinese low-sulfur fuel plan**

  制订中国的低硫燃油计划

| 项目 Item | 控制指标 Limit |
|---|---|
| 苯 Benzene (vol.%, max) | 2.5 |
| 烯烃 Olefins (vol. %, max) | 35 |
| 芳烃 Aromatics HC (vol. %, max.) | 40 |
| 锰 Manganese (g/L, max.) | 0.018 |
| 铁 Iron | 不得检出 Non-detectable |
| 铜 Coper | 不得检出 Non-detectable |
| 铅 Lead (g/L, max.) | 0.013 |
| 硫 Sulphur (% Mass, max.) | 0.08 |
| 磷 Phosphorus (g/L, max.) | 0.0013 |

Part 3

# The Priorities of Vehicle Emission Control in the future

# 未来机动车污染控制优先考虑的问题

# 3.1 Emission Standards in the future

## 未来的排放标准

- Heavy-duty positive ignition engine ---Phase 3 and 4
  重型点燃式发动机第3和第4阶段排放标准
- Motorcycle and Mopeds --- Phase 3 and 4
  摩托车和轻便摩托车第3和第4阶段排放标准
- Off-road engine
  非道路机械发动机排放标准
- Durability requirements for heavy-duty engine
  重型发动机耐久性标准
- Air quality in vehicle
  车内空气质量标准

# 3.2 Environmental Requirements for Vehicle Fuels in the future
# 未来对燃油的环保要求

- Sulfur content 硫含量
- Olefin content 烯烃含量
- Vapor pressure 蒸气压
- Aromatic hydrocarbon 芳烃含量
- Benzene 苯含量
- Manganese 锰含量
- Oxygen content 氧含量
- Detergent 清净剂

# 3.3 Environmental Management Target
# 环境管理目标

- **To establish the regulations of vehicle emission pollution control and supervision.**

  完善法规体系，争取尽早出台《中华人民共和国机动车排放污染控制监督管理条例》。

- **To build up a complete supervision system**

  健全监管制度，建立包括新车型式核准、生产一致性检查、在用车符合性检查，在用车定期和抽查检测、机动车环保召回，以及老旧车淘汰报废及回收拆解和车用燃料控制等较完整的监管体制。对制造、销售不在公告上或不达标的汽车等违法行为，将坚决予以查处。

- To keep balance on the following issues in the future:
  未来工作实现几个并重：

| | |
|---|---|
| New vehicle - In-use vehicle | 新旧并重 |
| Vehicle - Fuel | 车油并重 |
| Vehicle - Transportation | 车和交通并重 |
| Supervision - Encouragement | 监督和鼓励并重 |

- To phase in the key tasks, hereinafter, step by step:
  分阶段实现以下工作重点的转移：

## New vehicle supervision 新车的监管

TA → COP → IN-USE → RECALL

型式核准 → 一致性检查 → 在用车符合性 → 污染召回

## Vehicle emission control 机动车污染排放控制

Single emission → Gross control(energy, roads, city plan, vehicle population, driving rates, etc.)

单车排放 → 总量控制〔能源、道路、城市规划、保有量、出行率等〕

## Key control area 重点控制区域

Cities → Regional Area 城市 → 区域

East → Middle → West of China 东部 → 中部 →西部

# Thanks for your attention!

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