

Environmental Protection
Department

**Agreement No.
CE57/2006 (EP) Review
of the Air Quality
Objectives and
Development of a Long
Term Air Quality
Strategy for Hong Kong
- Feasibility Study**

Appendix D

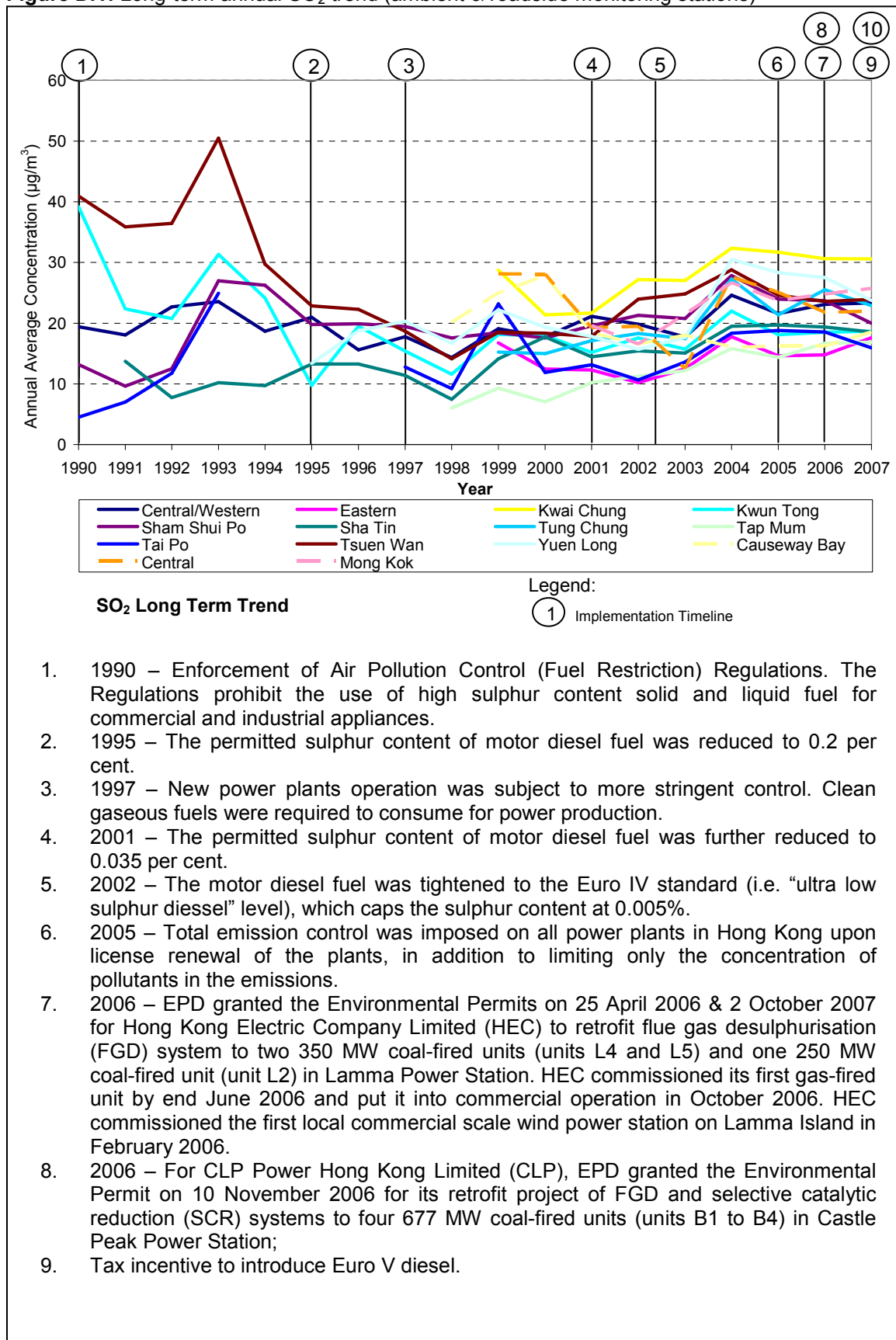
Air Quality Trend (1990 –
2007)

ARUP

D1 Air Quality Trend

D1.1 Sulphur Dioxide

Figure D.1: Long-term annual SO₂ trend (ambient & roadside monitoring stations)



D1.2 Oxides of Nitrogen / Nitrogen Dioxide

Figure D.2: Long term annual NO_x trend (ambient and roadside monitoring stations)

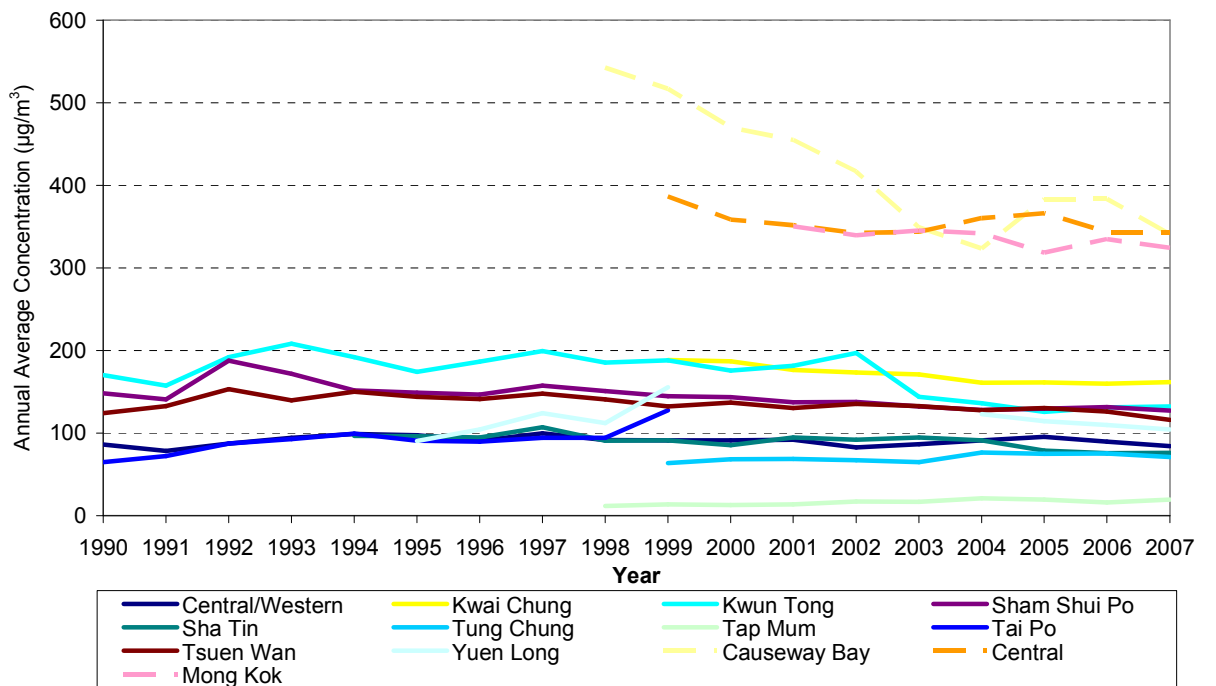
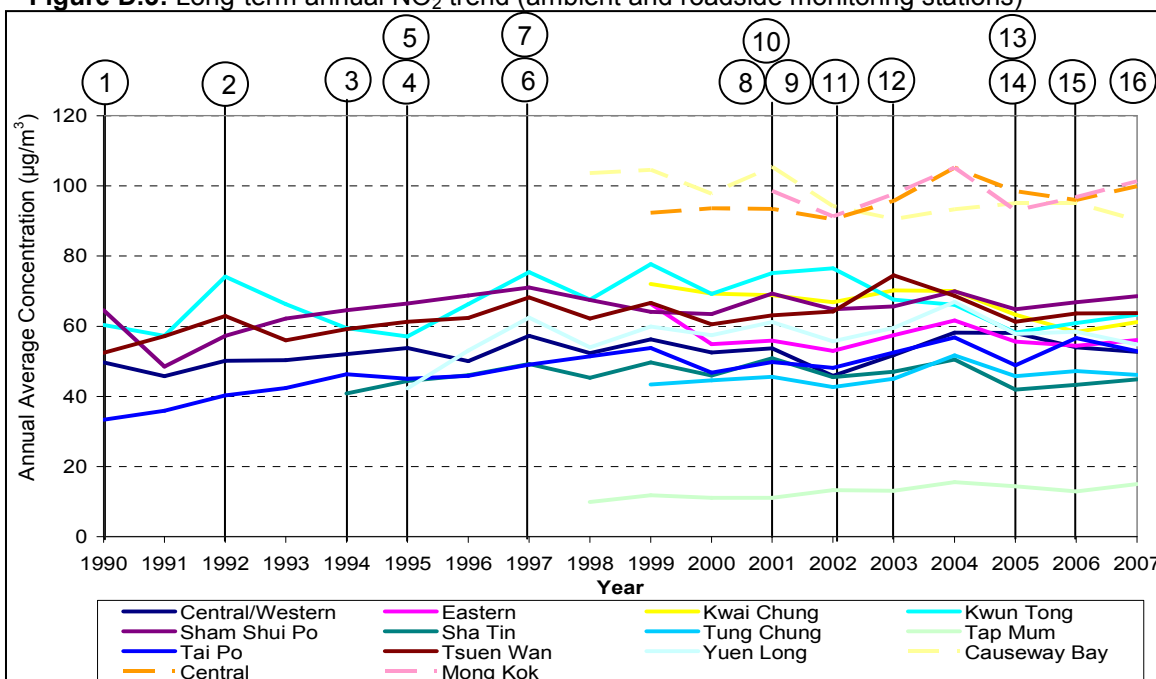


Figure D.3: Long-term annual NO₂ trend (ambient and roadside monitoring stations)



NO₂ Long Term Trend

Legend:

① Implementation Timeline

1. 1990 – Enforcement of Air Pollution Control (Fuel Restriction) Regulations. The Regulations prohibit the use of high sulphur content solid and liquid fuel for commercial and industrial appliances.
2. 1992 – Enforcement of Air Pollution Control (Vehicle Design Standards) (Emission) Regulations. The Regulations sets out the emission standards for newly registered vehicles.
3. 1994 – Enforcement of Air Pollution Control (Motor Vehicle Fuel) Regulation. The Regulation sets out the specifications of liquid motor vehicle fuel to be used in motor vehicles and prohibits the sale of leaded petrol.
4. 1995 – The permitted sulphur content of motor diesel fuel was reduced to 0.2 per cent.
5. 1995 – All newly registered vehicles were to comply with Euro I emission standards that were implemented in phases.
6. 1997 – All newly registered vehicles were to comply with Euro II emission standards that were implemented in phases.
7. 1997 – New power plants operation was subject to more stringent control. Clean gaseous fuels were required to consume for power production.
8. 2001 – All newly registered vehicles were to comply with Euro III emission standards implemented in phases.
9. 2001 – All newly registered taxis are required to use cleaner liquefied petroleum gas (LPG) or petrol to eliminate diesel fuel use.
10. 2001 – The permitted sulphur content of motor diesel fuel was further reduced to 0.035 per cent.
11. 2002 – The motor diesel fuel was tightened to Euro IV standard (i.e. “ultra low sulphur diesel” level), which caps the sulphur content at 0.005%.
12. 2003 – All Pre-Euro light diesel vehicles up to 4 tonnes were required to have an emission reduction device for licence renewal.
13. 2005 – Amendment of the Air Pollution Control (Motor Vehicle Fuel) Regulation. The unleaded petrol specifications will be tightened to Euro IV level
14. 2005 – Total emission control were imposed on all power plants in Hong Kong upon license renewal of the plants, in addition to limiting only the concentration of pollutants in the emissions.
15. 2006 – All newly registered vehicles were to comply with Euro IV emission standards that were implemented in phases.
16. 2007 – All pre-Euro diesel vehicles have to be installed with approved emission reduction devices; EPD launched a new programme to provide one-off grant totalling HK\$3.2 billion to encourage owners of 74,000 old diesel commercial vehicles to replace their old vehicles; EPD offer a 30% reduction in first registration tax to encourage the use of environment-friendly petrol private cars, subject to a ceiling of HK\$50,000 per car;

D1.3 Particulate Matter

Figure D.4: Long-term annual PM₁₀ (RSP) trend (ambient and roadside monitoring stations)

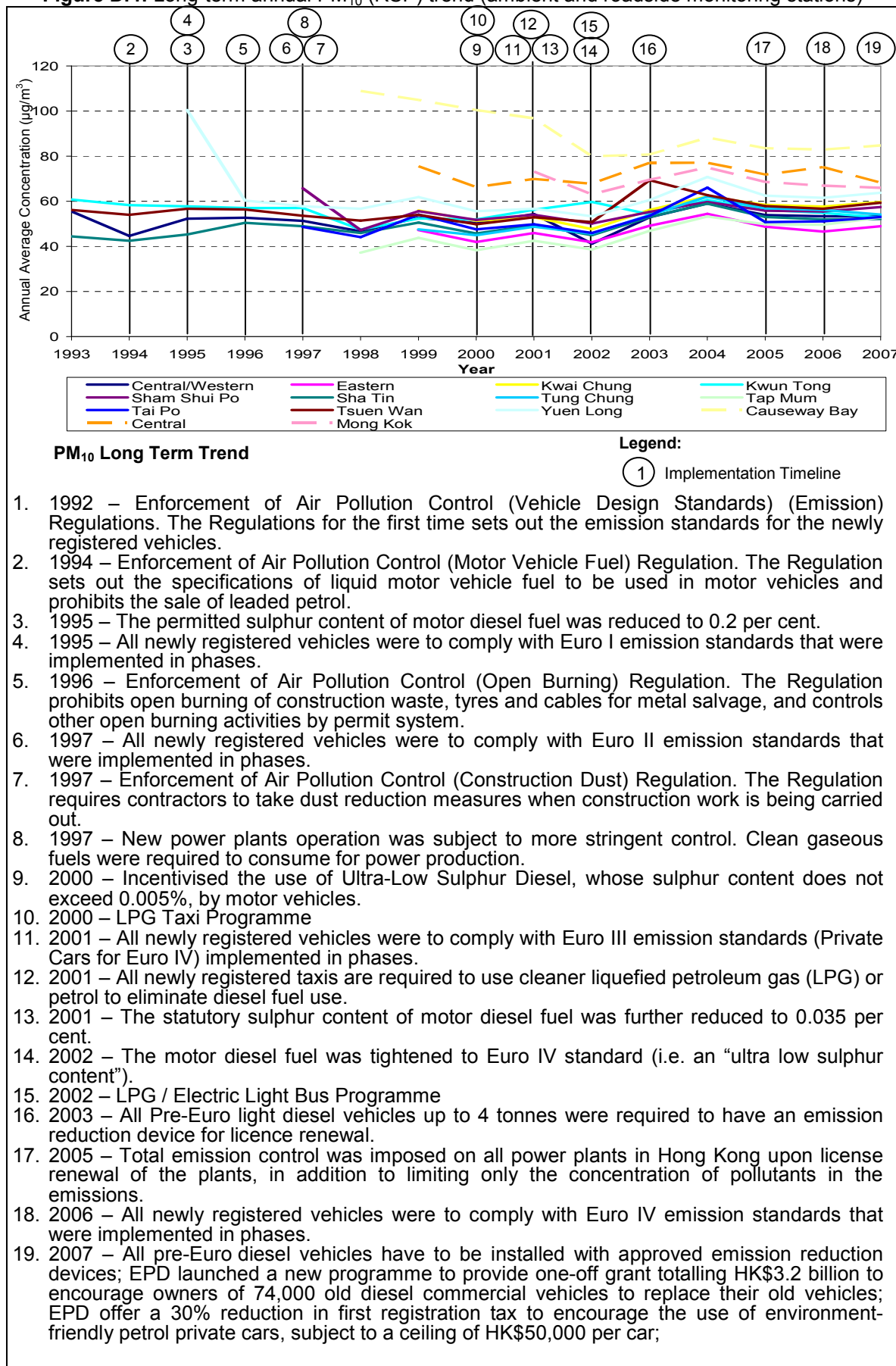
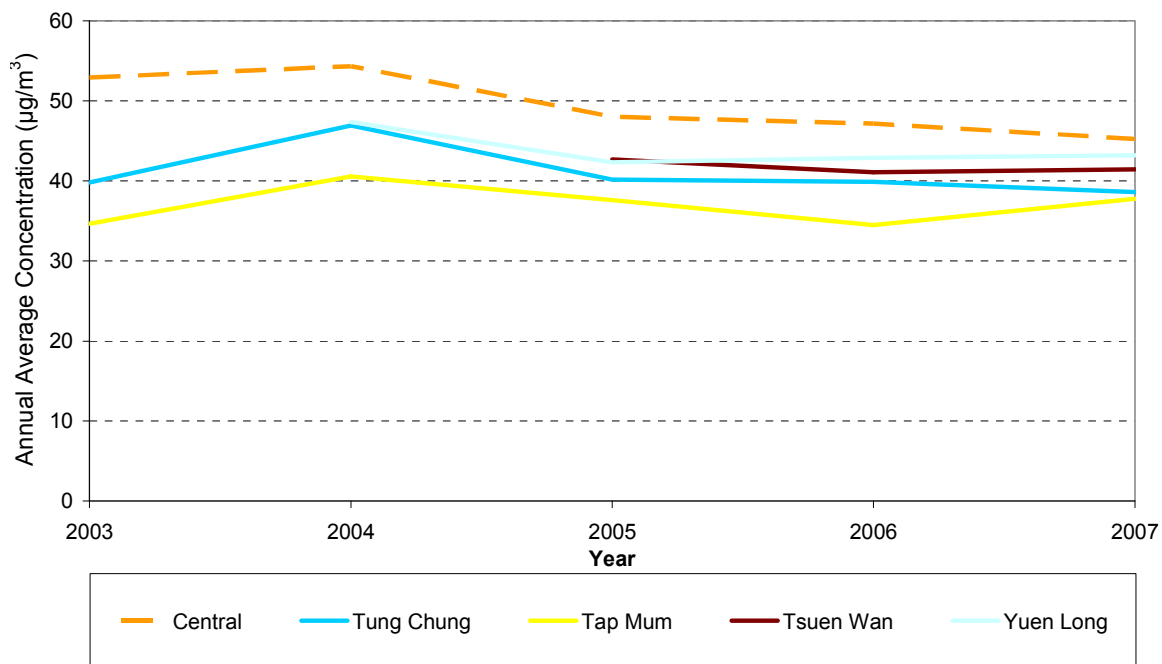


Figure D.5: Long-term annual trend of PM_{2.5} (FSP) (ambient and roadside monitoring stations)



D1.4 Ozone

Figure D.6: Long-term annual ozone trend (ambient monitoring stations)

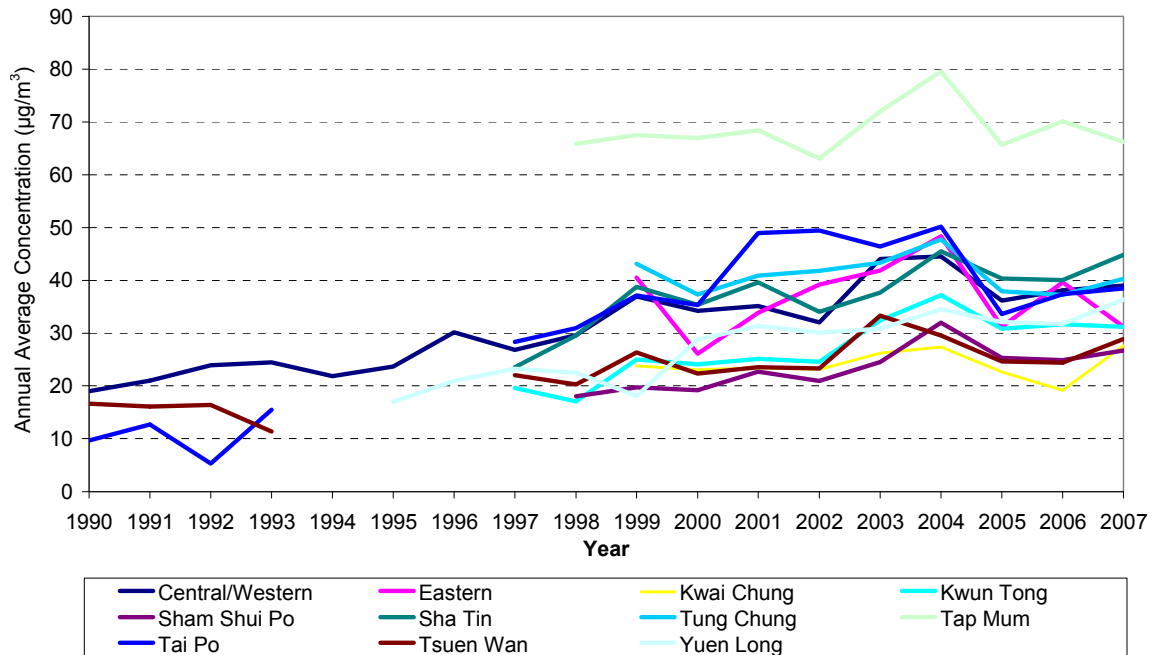
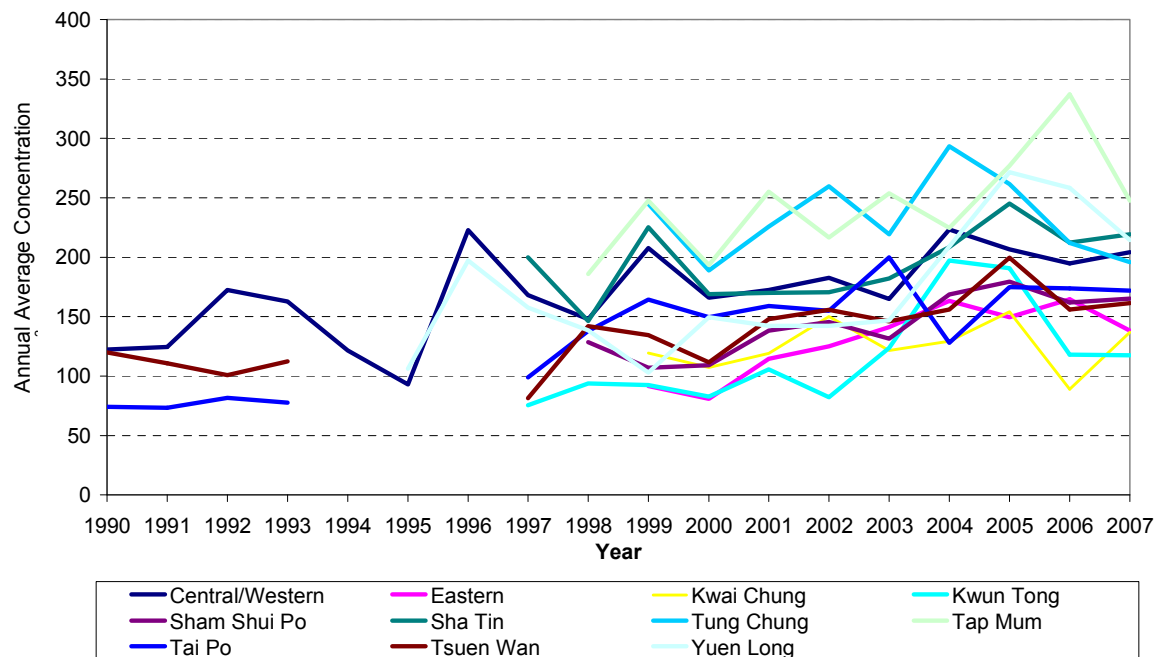
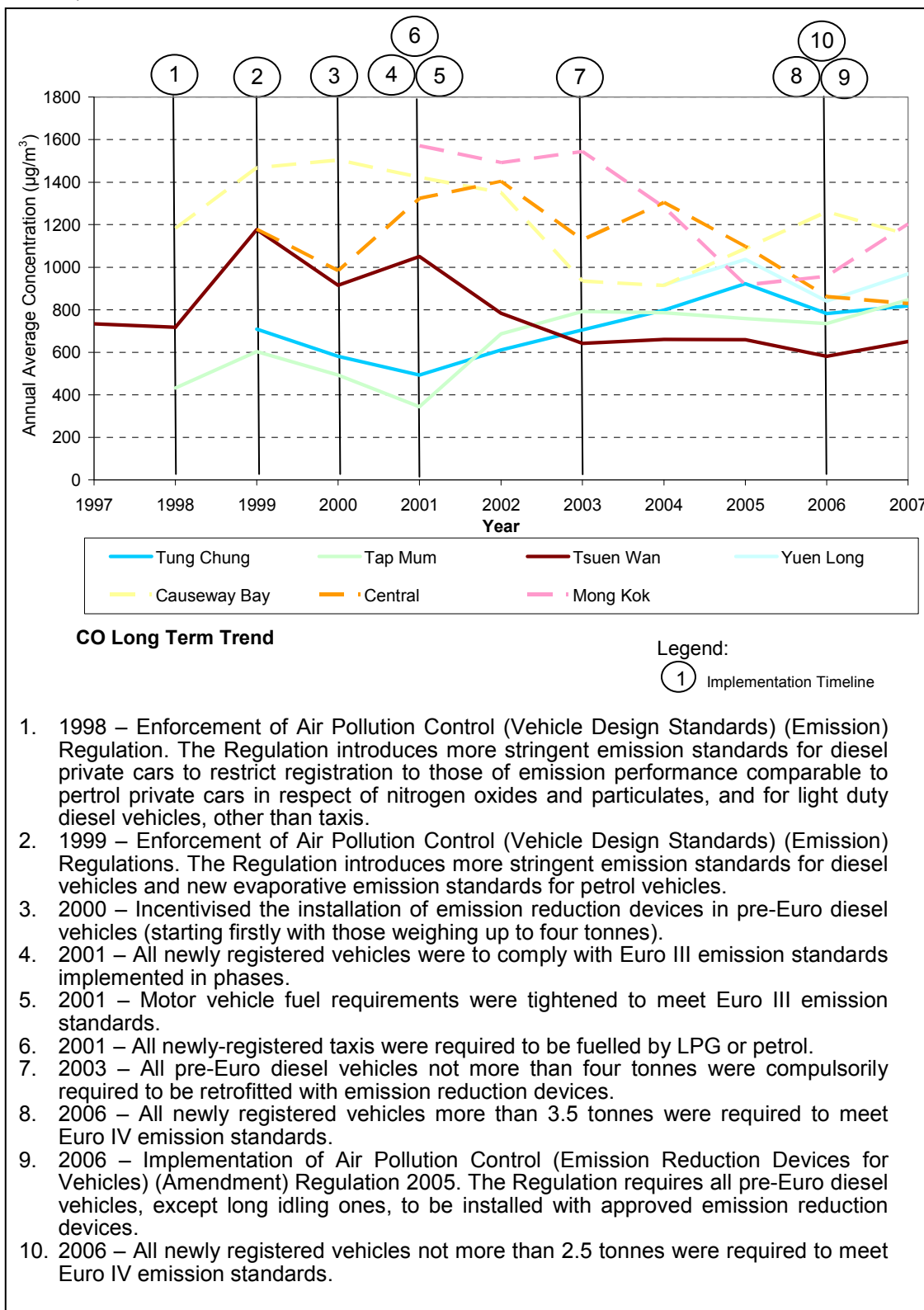


Figure D.7: Short-term 8-hr average O3 trend (ambient monitoring stations)



D1.5 Carbon Monoxide

Figure D.8: Long-term annual carbon monoxide trend (ambient and roadside monitoring stations)



D1.6 Lead

Figure D.9: Long-term annual Lead trend (ambient and roadside monitoring stations)

