

**Cooperation with Mainland  
《Pearl River Delta Regional Air Quality Management Plan》  
2005 Work Progress**

**Enhanced Control Measures of the HKSARG**

<b>Measures</b>	<b>Implementation Programme</b>	<b>Progress (Up to 30.11.2005)</b>
Encourage the replacement of diesel light buses with cleaner fuel ones	Since 2002, the Government has offered incentives to public light bus owners to encourage replacement of diesel light buses with liquefied petroleum gas (LPG) or electric ones.	An incentive scheme has been introduced since August 2002. Up to October 2005, there were 2361 public LPG light buses, 117 private LPG light buses and 1 electric light bus. Over 80% of the newly registered public light buses run on LPG. The incentive scheme will end by the end of 2005.
Require the retrofitting of particulate removal devices on pre-Euro diesel vehicles	Since 2002, financial assistance has been provided for retrofitting pre-Euro heavy diesel vehicles with particulate removal devices.	<p>Financial assistance was provided in phases from December 2002 to December 2004 to over 34000 non-long-idling pre-Euro heavy diesel vehicles retrofitting with catalytic converters. The HKSARG is proposing legislation to require the installation of approved emissions reduction devices on these vehicles.</p> <p>A programme for the installation of particulate removal devices for about 3300 long-idling pre-Euro heavy diesel vehicles (including lorries with cranes mounted, concrete mixers, pressure tankers and gully emptiers) has started since June 2005. Upon completion of the programme by end December 2005, the HKSARG intends to introduce legislation to require the installation of approved emissions reduction devices for these vehicles.</p> <p>Besides, all pre-Euro franchised buses have been installed with catalytic converters to reduce the emission of particulates.</p>

<b>Measures</b>	<b>Implementation Programme</b>	<b>Progress (Up to 30.11.2005)</b>
Enhance the vapour recovery systems in petrol filling stations	Legislation requiring the recovery of petrol vapour emitted during vehicle refueling at petrol filling stations was introduced in 2003/04.	The Regulation came into effect on 31 March 2005.
Tighten motor fuel standards	Motor fuel standards will be tightened to Euro IV by 2005 (motor diesel standard has already been tightened to Euro IV since 2002).	Euro IV motor fuel standards came into effect on 1 January 2005.
Tighten tailpipe emission standards	To adopt Euro IV standards for tailpipe emissions from 2006.	Euro IV standards will be introduced on 1 January 2006 for tailpipe emissions.
	To be in line with EU in adopting Euro V standards for tailpipe emissions.	<p>⌈ New item included in December 2005 ⌋</p> <p>To be in line with EU to adopt Euro V standards for tailpipe emissions.</p>
Reduce VOC emissions from the printing process, paints and consumer products	Phase I: To introduce legislation in 2004 or 2005 to require labeling of VOC-containing products.	During public consultation held in September 2004 and subsequent discussions with stakeholders, members of the trade generally agreed advance Phase II and impose limits on the VOC content of VOC products, and to set appropriate levels and technical details at an earlier date. Law drafting work has commenced and the legislative process is expected to complete in mid 2006. All VOC-containing products under control will be subject to the statutory limits in phases with effect from 2007.
	Phase II: To introduce legislation in phases to reduce the use of products with high VOC contents and to impose emission standards for the printing process.	

<b>Measures</b>	<b>Implementation Programme</b>	<b>Progress (Up to 30.11.2005)</b>
Reduce emissions from power stations	Effective and flexible mechanisms (which may include emissions trading) will be set up to control the total emissions of SO <sub>2</sub> , NO <sub>X</sub> and RSP from power stations to achieve respective reduction targets by 2010.	The emissions reduction options set out in the financial plans of the two power companies were approved by the Government in June 2005. CLP Power Hong Kong Limited will provide desulphurization and de-NO <sub>X</sub> systems for four of its coal-fired generating units each of 677MW. Hong Kong Electric Co. Ltd. will provide low-NO <sub>X</sub> burners and desulphurization systems for two of its coal-fired generating units each of 350MW. In order to achieve the 2010 emissions reduction targets, the Government will continue discussions with the two power companies on other options, including the speeding up of emissions reduction projects and participation in emissions trading etc. Furthermore, CLP will increase the use of ultra low sulphur coal and seek to increase natural gas supply through the development of liquefied natural gas facilities.
	Introduce caps on total emissions from power plants.	(New item included in December 2005).  An emission cap has been included in the licence for CLP's Castle Peak Power Station starting from 1 August 2005. EPD will continue to introduce emission caps on power plants upon licence renewal with a view to gradually reducing emissions to the level set for 2010.

**Cooperation with Mainland  
《Pearl River Delta Regional Air Quality Management Plan》  
2005 Work Progress**

**Enhanced Control Measures of the Guangdong Provincial Government**

<b>Measures</b>	<b>Implementation Programme</b>	<b>Progress (Up to 30.11.2005)</b>
Use cleaner energy	To reduce gradually the energy consumption per 10000 Yuan GDP. To establish by 2010 a diversified energy production and supply system that is safe, stable, economical, efficient and clean.	Work in progress.
	To construct liquefied natural gas (LNG) trunk pipeline and carry out the associated works. To complete Phase I in 2005 that will have a capacity of 3 million tonnes/year. In 2009, to complete Phase II that will increase the total capacity to 6 million tonnes/year and finish construction of a number of LNG power plants.	Phase I works are expected to be completed in 2006 and the four LNG power plants at Daya Bay in Huizhou, Shenzhen East, Qianwan in Shenzhen and Zhujiang in Guangzhou are under construction as scheduled.
	To improve by 2005 the 500KV dual circuit annular core transmission grid to ensure transmission of electricity from western provinces.	The 5 AC 3 DC main transmission channels from western provinces have been completed.
Control the sulphur content of fuel	To control the use of high sulphur fuel (sulphur content of coal and fuel oil should be below 0.8% in the acid rain control zone by 2005).	Being implemented.

<b>Measures</b>	<b>Implementation Programme</b>	<b>Progress (Up to 30.11.2005)</b>
Reduce emissions from coal-fired and oil-fired power stations	To phase out small-scale thermal power generating units. Power plants with a capacity of over 300MW to account for over 70% of the total installed capacity in the region in 2005, which is 35% higher than that in 2000.	Expected to be completed in 2007 due to electricity demand well exceeding estimation.
	To install flue gas desulphurization systems at the power plants in Shajiao, Huangpu, Taishan and Zhuhai by 2005.	Flue gas desulphurization systems installed in Shajiao Power Plant A (Unit 5), Shenzhen Xibu Power Plant (Units 4, 5 and 6), Guangzhou Hengyun Power Plant, Guangzhou Ruiming Power Plant, Guangzhou Power Plant, Yuancun Thermal Power Plant Boiler 2, Guangzhou Papermaking self-use thermal plant and Taishan Power Plant Units 1 and 2. Flue gas desulphurization systems are being retrofitted to all other generation units.
	To require all oil-fired and coal-fired generation units of capacity above 125MW to be equipped with flue gas desulphurization systems by 2007.	
	To require all coal-fired and oil-fired power plants to adopt low-NOX combustion technologies in case of alteration or expansion.	(New item included in December 2005).
Control emissions from industrial boilers and industrial processes	To phase out coal-fired boilers with a capacity of less than 2 tonnes/hour in the urban areas of cities. By 2005, to stop using such coal-fired boilers in build-up areas of key cities. To require all large and medium-size industrial boilers to install desulphurization systems or adopt clean combustion technologies to reduce emissions.	Have generally phased out and stopped the operation of coal-fired boilers of less than 2 tonnes/hour in the urban areas of cities in the region.

<b>Measures</b>	<b>Implementation Programme</b>	<b>Progress (Up to 30.11.2005)</b>
	To continue phasing out various production technologies and installations that have caused serious pollution by emitting sulphur dioxide, smoke and particulates.	Work in progress.
	To actively study the technologies for controlling emission of nitrogen oxides from stationary sources such as power plant boilers, industrial boilers and restaurant boiling water furnaces.	(New item included in December 2005).
Reduce the emission of VOC from paints	To replace by 2003 paints using VOCs like xylene as solvents.	Work completed.
Reduce tailpipe emissions from motor vehicles	To commence the construction of a regional rapid light-rail system by 2005. To construct expressways in major cities, such as the district expressway in Southern Guangzhou and the Shenzhen-Shenping Express Trunk Road.	The "Planning of the Transport Routes for Inter-City High Speed Railway Network in the PRD Region (2005-2020)" was endorsed by the State Council in March 2005 and incorporated into the State's medium to long term railway network planning. The Pearl River Delta High Speed Transportation Network Project has started.

Measures	Implementation Programme	Progress (Up to 30.11.2005)
	<p>To develop green transport by implementing clean vehicle action programmes in major cities of the region. To encourage the use of clean fuels, develop electric vehicles and actively promote the use of advanced clean fuel motor vehicles.</p>	<p><u>Shenzhen</u></p> <ul style="list-style-type: none"> <li>• Formulated the “Medium to Long Term Planning for the Development of Clean Vehicles in Shenzhen”. Drew up and implemented the 2003-2008 general work programme for the use of clean fuel in public transport vehicles. 2000 public buses will be replaced by Euro III vehicles by end 2005.</li> <li>• All public transport vehicles must use diesel with sulphur content of less than 500 ppm.</li> <li>• Introduction of motor diesel with sulphur content of less than 500 ppm.</li> <li>• Preparations for promoting installation of vapour recovery systems at petrol filling stations being pursued.</li> </ul> <p><u>Guangzhou</u></p> <ul style="list-style-type: none"> <li>• Motorcycles are prohibited from using certain road sections in the urban areas. Introduction of motor diesel with sulphur content of less than 500 ppm.</li> <li>• Active promotion of LPG public transport and hired vehicles. As at 30 May 2005, there were 3,547 LPG public transport vehicles and 8,100 LPG hired vehicles.</li> </ul>

Measures	Implementation Programme	Progress (Up to 30.11.2005)
	<p>To require all new motor vehicles to fully meet emission standards. To step up annual inspection and on-road spot checks of in-use vehicles. To strengthen the control of in-use vehicles to ensure that over 90% of motor vehicles in the cities within the region will meet tailpipe emission standards by 2005.</p>	<p>National II emission standards have already been adopted since 1 July 2005, and will strive to adopt National III standards by end 2006.</p> <p><u>Shenzhen</u></p> <ul style="list-style-type: none"> <li>All newly registered public transport vehicles are required to comply with the National III emission standards. Established the reporting and joint investigation system for smoky vehicles. Implemented the I/M system. Adopted a labeling system on the environmental categorization of motor vehicles.</li> </ul> <p><u>Guangzhou</u></p> <ul style="list-style-type: none"> <li>Initiated control actions against smoky motor vehicles.</li> </ul>
	<p>To study the feasibility of advancing the implementation of the National IV emission standards for light-duty vehicles by 2010.</p> <p>To study the feasibility of advancing the implementation of the National V emission standards for heavy-duty vehicles by 2010.</p> <p>To strengthen management on regular inspections of in-use motor vehicles to make sure that the required environmental performance is met.</p>	<p>(New item included in December 2005).</p>



**Pearl River Delta Air Quality Management and Monitoring Special Panel  
Summary of 2006 Action Plan**

**Assess the Progress of the Management Plan**

- Conduct at least 2 site inspections to assess the progress of implementing various measures in the Management Plan.
- Review the progress and effectiveness of the Management Plan and recommend additional measures.

**Regional Air Quality Monitoring Network**

- Publish on a daily basis the Regional Air Quality Index to the public.
- Submit the Monitoring Report on the PRD Regional Air Quality Monitoring Network and the Report on the Operation of the Regional Air Quality Monitoring Network in April and October 2006.
- Carry out thematic studies by making use of the data collected by the Regional Air Quality Monitoring Network, where necessary.
- Recommend and commence thematic research projects.

**Regional Emissions Inventory**

- Complete the 2003 PRD Regional Emissions Inventory in the first quarter.
- Complete the review and amendment of the 1997 Emissions Inventory.
- Evaluate the trend of regional emissions with reference to the audit results and draw up corresponding strategies and follow-up actions.

## Enhance Technical Exchanges and Training of Personnel

- The scope of technical exchanges includes –
  - Operation of the regional monitoring network and compilation of emissions inventories;
  - Studying the feasibility of adopting National IV/V motor vehicle emission standards in the PRD Economic Zone in 2010;
  - In-use vehicles emissions inspection technologies and management;
  - Continuous emissions monitoring systems for stationary pollution sources;
  - Flue gas de-NO<sub>x</sub> technology for thermal power plants; and
  - Emissions reduction technology for industrial pollution sources.

## Emission Trading Pilot Scheme for Thermal Power Plants in the PRD Region (the “Pilot Scheme”)

- Report the study findings on the implementation details to both governments by mid-2006.
- As agreed by the two governments, details of the Pilot Scheme will be presented to the power plants in Guangdong and Hong Kong in the third quarter of 2006 so that prospective participants can identify trading partners and draw up emissions trading agreements.