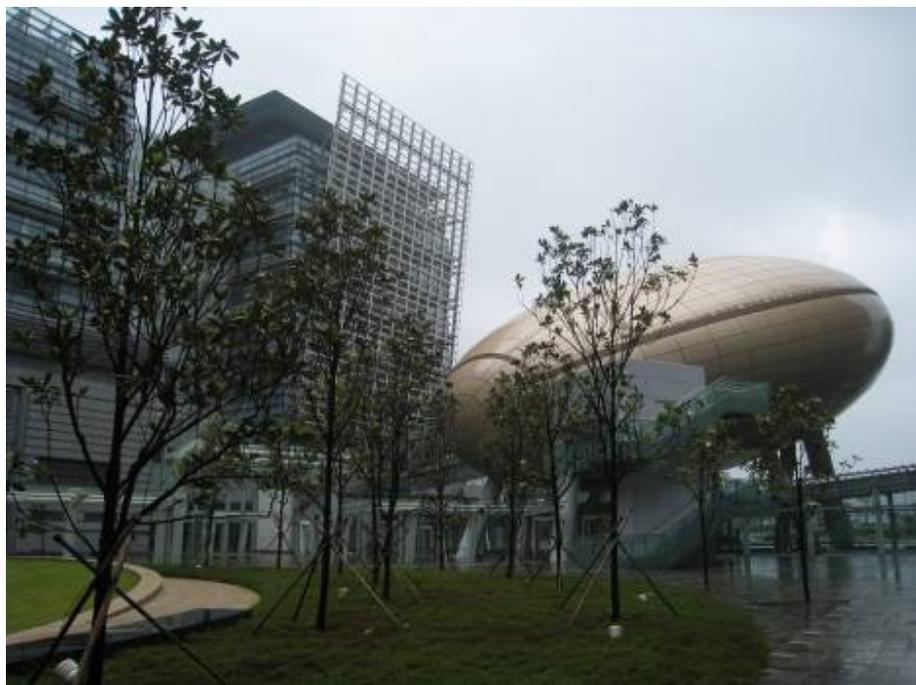


PROJECT CLEAN AIR
Certification Scheme for Clean Air Charter
For
Hong Kong Science & Technology Parks Corporation



Prepared by



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1. INTRODUCTION

The Hong Kong Science & Technology Park is a development commissioned by the Government of the Hong Kong Special Administrative Region in 1999. It is located in the southern portion of Park Shek Kok Reclamation Area in Shatin, New Territories. The site is bounded by Tolo Harbour on the northeast and Tolo Highway on the southwest.

It occupies 22 hectares comprising 3 phases of development. Phase 1 & 2 were inaugurated in 2004 and 2007 respectively and both phases are now operational. There are about 19 buildings providing an environment for high-tech companies and talented people to create world-class technology clusters focusing on applied research and development. Sustainability has been the key element in the design and construction of the Science Park buildings.

This report outlines the findings of the Business Environment Council (BEC) from a walk through audit and interview with a representative from Hong Kong Science & Technology Parks Corporation (HKSTPC), Mr. Kam Liu and Mr. K. M. Chan.

The purpose of this audit was to assess HKSTPC's implementation of the Clean Air Charter within the Science Park Phase 1 and 2 (described in *Appendix A*) and make recommendations for steps to be taken to achieve certification against the Clean Air Charter. The certification process is summarised in *Appendix B* for easy reference.

The audit visit was led by Mr. Benny Au and Ms. Dorothy Lam on 25th May 2009. The purpose of this audit was to report the HKSTPC's implementation of the Clean Air Charter obtained during the interview and the subsequent material submitted for demonstration purpose.

2. OBSERVATIONS AND COMPLIANCE

Based on the site meeting with HKSTPC, company programmes and practices on reducing air emission were reviewed. In general, a systematic structure on addressing the Clean Air Charter has been established with the followings:

- The project and facilities department is responsible for energy management policy preparation;
- The facility management office is responsible for monitoring the energy consumption;
- Signature for Clean Air Charter has been published in the annual report and highlighted in internal department meeting.

Regarding the six commitments of the Clean Air Charter, the table below summarizing the achievements of HKSTPC:

| Commitment | Action Done |
|--|--|
| 1) Operate to a recognized world class standard, or the standards established by the Hong Kong / Guangdong governments on emissions of air pollutants, even if it is not a requirement to do so here. (Relevant to industrial operations, power plants and business with direct emissions) | <ul style="list-style-type: none"> • In view of the main activities within HK Science Park, no major direct emission is generated. Most of the air emission is indirect (energy consumption), hence this commitment has limited applicability for HKSTPC. • In addition, the energy consumption of each building is recorded and reported in a monthly basis. |
| 2) Use continuous emissions monitors (CEMs) at significant sources, e.g. large and medium plants. (Relevant to large / medium industrial operations and power plants) | This commitment is for industrial or power plants, hence not applicable for HKSTPC. |
| 3) Publish information on energy and fuel use, as well as total emissions of air pollutants annually and timely, if emissions are significant. | <ul style="list-style-type: none"> • Energy consumption (April – June 2009) has been reduced by 2% as compared with 2008 and the news has been distributed to the tenant through their newsletter “HKSTP Connect September 2009”. • Due to the unique building use, benchmarking with other similar buildings in Hong Kong is difficult. Nevertheless, benchmarking with EMSD’s figures is in place. Moreover, annual energy consumption comparison for each individual building is available. |
| 4) Undertake to adopt energy-efficient measures in their operations. | <ul style="list-style-type: none"> • During the building design stage, energy efficiency measures have been introduced including evaporative cooling water system, heat reclaim chiller, heat wheel, variable speed drive motors, carbon dioxide sensors for control fresh air and solar energy application. Solar energy for electricity generation has been applied for Phase 1 buildings and solar hot water system has been applied for Phase 2. • HKSTPC is establishing an energy management plan. • HKSTPC has conducted an energy audit for some Phase 1 buildings this year. |

| Commitment | Action Done |
|---|--|
| 5.) Identify and encourage business-relevant measures to be taken on days when air pollution is high. | <ul style="list-style-type: none"> • On high air pollution days, HKSTPC will consider the opportunities for staff to work at home until the outdoor air pollution reduced to a reasonable level. • In addition, HKSTPC will consider sending out notice during the high outdoor air pollution day through email and intranet to encourage staff to take public transport and to use less electricity at home and at work • Reschedule the generator test until the outdoor air pollution reduced to a reasonable level is possible which will be coordinated with the facility management. |
| 6) Share air quality expertise in business with others. | <ul style="list-style-type: none"> • HKSTPC participated in numbers of environmental competitions related to energy efficiency and awarded for its achievements in green initiatives including: <ul style="list-style-type: none"> □ Green Building Award 2006 – Merit of New Office Building for Phase 1 □ Indoor Air Quality Certification for Phase 1 buildings □ Certificate of Merits of the Quality Building Award 2008 for the Non-Residential Category and the Special Category of sustainability for Phase 2 • HKSTPC introduced Hong Kong Technology & Renewable Energy Events (HKTREE) since 2006 to promote public awareness of the understanding and applications of renewable energy and sustainable technology. |

3. CONCLUSION

Hong Kong Science & Technology Parks Corporation has demonstrated their commitments towards the Clean Air Charter's commitments and is recommended to be certified under the Clean Air Charter.