

PROJECT CLEAN AIR

Certification Scheme for Clean Air Charter

Final Report

For

Hong Kong Airport Services Limited (HAS)



Prepared by



May 2012

1. INTRODUCTION

Hong Kong Airport Services Ltd. (HAS) is one of the major ground handling agents in the Hong Kong International Airport and is a wholly owned subsidiary of the Cathay Pacific Airways Limited. HAS is now providing a full range of ground services to the airline customers including passenger and baggage services, aircraft handling, cargo and air mail transferring, aircraft load control, flight dispatch services, ramp co-ordination, aerobridge and passenger steps operation, Unit Load Device storage and crew transportation services.

Employees of HAS are working at several locations separately at Cathay Pacific City, Dragonair House, Super Terminal 1 and Passenger Terminal Building at the airport. HAS was recently accredited as an IATA Safety Audit Programme for Ground Operations (ISAGO) on 7 July 2011 without any non-conformance items.

This report outlines the findings of the Business Environment Council Limited (BEC) from a site audit and interview with Mr. Garry Ng – Business Support Manager, Ms Sandy Cheuk - Business Support Officer and Mr. Rick Man – Business Support Officer.

From the pre-audit questionnaire completed by HAS, it was determined that HAS fits into Group C category of the certification scheme, showing that the organization has comprehensive management systems in place and means to identify and verify the implementation of energy efficiency / emission reduction programmes which are in compliance with the Clean Air Charter.

The site audit was conducted at HAS and led by our Ms Konnie Yu (Senior Specialist) on 14th March 2012. The purpose of this audit was to verify HAS's commitments to the Clean Air Charter.

2. OBSERVATIONS AND COMPLIANCE

Based on the site meeting, HAS's programmes and practices on reducing air emission were reviewed. In general, a systematic approach on addressing the Clean Air Charter's commitments has been implemented as follows:


- HAS is a social responsible company and commits to working at different ways to reduce the impacts on environment from daily operations.
- Environmental Committee is established with full support from the Managing Director to implement polices, objectives and action plans to minimize the influences on environment including the reduction of engine exhaust, air pollutants and greenhouse gas emissions (GHG).
- Environmental Management System Manual is established with responsibilities and working procedures for staff to follow.
- HAS cooperates constantly with the Swire Group Environmental Committee to develop corporate-wide environmental management directions.
- The Technical Services Section and Operations Department are responsible for the selection and procurement of Ground Support Equipment (GSE) meeting with the latest emission standard for the daily ramp operations.
- Engine emissions and energy consumption are recorded on a monthly basis for monitoring and improvement purposes.
- From 2012, HAS has established a target to reduce 3% GHG emissions.
- The direction on air emission / energy reduction from top management is transferred to working staff via newsletters, notice board, internet / intranet, campaigns and trainings etc.

Regarding the six commitments of the Clean Air Charter, the table below summarizes the achievements of HAS:

| 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"> ◆ HAS has conducted aspects identification on all operational sections. All the energy consumption records (both direct and indirect) are kept on a monthly basis. ◆ HAS follows the standards of European Union (EU) and Air Pollution Control (Vehicle Design Standards) (Emission) Regulations for vehicle fleets. |
| 2) Use continuous emissions | ◆ Engine tailpipe exhaust gas from the ground support |

| Commitment | Action done | | | | | | | | | | | | |
|---|---|----------|------------|-------------------------------|-------|------------------------|------|---------------------------------|-------|----------------------------------|------|--------------|---|
| <p>monitors (CEMs) at significant sources, e.g. large and medium plants. (Relevant to large / medium industrial operations and power plants)</p> | <p>equipment and vehicles is identified as the prime source of air emissions from daily ramp operations of HAS and the major air pollutants generated include SO₂, NO_x and PM.</p> <ul style="list-style-type: none"> No continuous emissions monitor is required under the Air Pollution Control Ordinance and hence continuous emission monitoring is not applicable to the scope of HAS operation with regards to the CAC commitments. | | | | | | | | | | | | |
| <p>3) Publish information on energy and fuel use, as well as total emissions of air pollutants annually and timely, if emissions are significant.</p> | <ul style="list-style-type: none"> HAS publishes their electricity, fuel and ozone-depleting substances consumption, carbon dioxide emissions in its annual Sustainable Development (SD) Report, website and newsletter. <div data-bbox="706 793 1450 1115" data-label="Figure"> <table border="1"> <caption>Greenhouse gas emissions attributable to HAS 2010</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Burning fossil fuel (scope 1)</td> <td>80.1%</td> </tr> <tr> <td>Refrigerants (scope 1)</td> <td>3.8%</td> </tr> <tr> <td>Purchased electricity (scope 2)</td> <td>15.9%</td> </tr> <tr> <td>Business travel by air (scope 3)</td> <td>0.2%</td> </tr> <tr> <td>Total</td> <td>9.57 thousand tonnes of CO2-equivalent</td> </tr> </tbody> </table> <p style="text-align: center;">Carbon dioxide emissions in HAS's annual SD Report</p> </div> <ul style="list-style-type: none"> HAS has benchmarked their energy consumption and greenhouse gas emissions with other companies in the aviation services industry within Swire Group and the result is published in Swire Pacific Sustainable Development Report. | Category | Percentage | Burning fossil fuel (scope 1) | 80.1% | Refrigerants (scope 1) | 3.8% | Purchased electricity (scope 2) | 15.9% | Business travel by air (scope 3) | 0.2% | Total | 9.57 thousand tonnes of CO2-equivalent |
| Category | Percentage | | | | | | | | | | | | |
| Burning fossil fuel (scope 1) | 80.1% | | | | | | | | | | | | |
| Refrigerants (scope 1) | 3.8% | | | | | | | | | | | | |
| Purchased electricity (scope 2) | 15.9% | | | | | | | | | | | | |
| Business travel by air (scope 3) | 0.2% | | | | | | | | | | | | |
| Total | 9.57 thousand tonnes of CO2-equivalent | | | | | | | | | | | | |
| <p>4) Undertake to adopt energy-efficient measures in their operations.</p> | <p>HAS has implemented a number of energy-efficient measures in their operations to reduce emissions, including:</p> <ul style="list-style-type: none"> Studying on the dual-power loader and fast charging system, which can reduce battery charging time from 8 to 2 hours. | | | | | | | | | | | | |

| Commitment | Action done |
|------------|--|
| | <div data-bbox="847 247 1307 588" data-label="Image"> </div> <p data-bbox="979 604 1177 632">Dual-power loader</p> <div data-bbox="896 646 1258 1123" data-label="Image"> </div> <p data-bbox="963 1140 1192 1167">Fast charging system</p> <ul data-bbox="706 1186 1453 1281" style="list-style-type: none"> ◆ The Ground Support Equipment (GSE) Replacement Programs are implemented to replace equipment with heavy tailpipe emission or depreciated. <div data-bbox="820 1297 1339 1648" data-label="Image"> </div> <p data-bbox="868 1665 1291 1692">New Ground Support Equipment (GSE)</p> <ul data-bbox="706 1711 1453 1869" style="list-style-type: none"> ◆ In 2010, four new control vans and a EURO IV 51-seater shuttle bus had been introduced, to replace the old pick-up control vans and one EURO II 51-seater shuttle bus respectively. In 2011, EURO V shuttle bus had been introduced. |

| Commitment | Action done |
|---|--|
| |  <p data-bbox="971 604 1187 632">EURO V shuttle bus</p> <ul data-bbox="706 653 1455 1081" style="list-style-type: none"> ◆ An electric conveyer belt and two electric tractors were put into service to reduce air pollution by burning fossil fuel. ◆ In 2011, the GSE Fleet Management Project has been implemented to optimise the utilisation of equipments and vehicles by using dynamic route planning and real-time allocation, which saved 2.8% of fuel consumption compared with 2010. ◆ HAS has improved their electronic communication system, including electronic notice board, intranet and email system, to reduce paper used in daily operations. |
| <p data-bbox="235 1165 673 1297">5) Identify and encourage business-relevant measures to be taken on days when air pollution is high.</p> | <ul data-bbox="706 1165 1455 1381" style="list-style-type: none"> ◆ The Safety Section will update and display the weather condition and air quality on the electronic display board to remind staff members about the poor air quality. ◆ Staff members are encouraged to take environmentally friendly public transport. |
| <p data-bbox="235 1465 641 1528">6) Share air quality expertise in business with others.</p> | <ul data-bbox="706 1465 1455 1711" style="list-style-type: none"> ◆ HAS shares their environmental experiences among Swire companies in the Swire Best Practice Working Group in quarterly meeting. ◆ Environmental achievements are communicated with other companies through annual Sustainable Development (SD) report, website, newsletter and other occasions. |

3. CONCLUSION

Hong Kong Airport Services Ltd. has demonstrated their commitments towards the Clean Air Charter's commitments and is recommended to be certified under the Clean Air Charter.