

PROJECT CLEAN AIR

Certification Scheme for Clean Air Charter

Final Report

For

Swire Coca-Cola Hong Kong Limited (SCCHK)



Prepared by



September 2012

1. INTRODUCTION

Swire Coca-Cola HK Ltd. (SCCHK) is a bottling factory that manufactures well-known beverage brands including Coca-Cola, Sprite, Fanta, Nestea, Schweppes, Qoo, Bonaqua and etc. SCCHK is located in Shatin at the world's tallest bottling plant which was officially opened on 17th May 1991. The 19-storey, 147 meters high facility provides more than 70,000 square meters of usable space. The SCCHK plant includes production facilities, warehouse, materials storage, a complete floor dedicated to wastewater treatment, loading and parking areas and office space.

With approximate 1400 employees and 242 vehicles in Hong Kong, SCCHK is a joint venture between Swire Pacific and The Coca-Cola Co. and is under the management of Swire.

This report outlines the findings of the Business Environment Council Limited (BEC) from a walk through audit and interview with Mr. Joseph Chan, Assistant Environmental Manager – Quality Management of SCCHK.

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

The site visit was conducted at the SCCHK production plant in Shatin and led by Ms Konnie Yu (Senior Specialist) and Ms Annie Yeung (Officer) on 2nd August 2012. The purpose of this audit was to verify SCCHK's commitments to the Clean Air Charter.

2. OBSERVATIONS AND COMPLIANCE

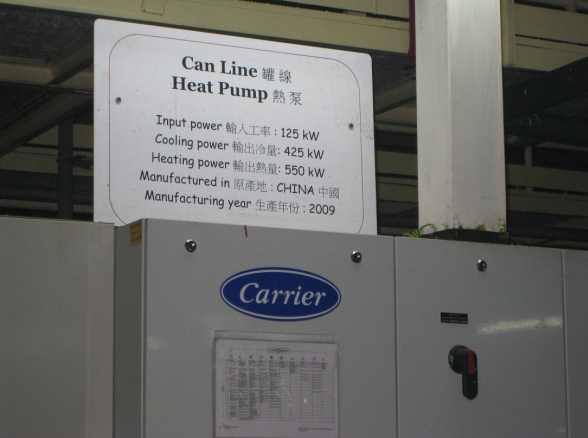

Based on the site meeting, SCCHK programmes and practices on reducing air emission were reviewed. In general, a systematic approach on addressing the Clean Air Charter's commitments has been implemented as follows:



- SCCHK has been certified with ISO 14001:2004 since June 2010.
- The Coca-Cola Management System has been replaced by KORE, which is a new framework of governance and management system focusing on quality and sustainability to meet current and future stakeholder demands.
- SCCHK follows the Sustainable Development Management Framework under the Swire Pacific Sustainable Development Guidelines.
- The Director and General Manager, Supply Chain Director, Quality Management Manager and environmental management representative would take part in the annual management review whenever new objectives and targets are set.
- SCCHK's Environment, Health and Safety (EHS) committee, chaired by the Director and General Manager, is responsible for the overall management of all environmental issues of the company including energy and emission management.
- SCCHK has established several Key Performance Indices (KPI) on various aspects of energy utilization rate e.g. electricity usage ratio, total energy usage ratio, fuel consumption ratio etc.


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

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"> ◆ SCCHK follows Coca-Cola Operation Requirements (KORE) which is the framework of governance and management system focusing on quality and sustainability throughout the Coca-Cola system worldwide. The company aligned with internationally – recognized standards in manufacturing, production and distribution. ◆ The EMS (environmental management system) manual detailed SCCHK's environmental policy, programs on energy efficiency improvement, environmental emergency preparedness and response, environmental monitoring, compliance evaluation, green procurement, identification of environmental aspects and impacts, measuring and reporting environmental performance, etc.
2) Use continuous emissions monitors (CEMs) at significant sources, e.g. large and medium plants. (Relevant to	<ul style="list-style-type: none"> ◆ SCCHK's major emission sources are towngas boilers and vehicles exhaust. Regular monitoring of smoke level of vehicle fleet as well as CO₂ content from

Commitment	Action done															
<p>large / medium industrial operations and power plants)</p>	<p>boiler stack.</p> <ul style="list-style-type: none"> ◆ Significant emissions are identified mainly as carbon dioxide, particulate matters, and trace amount of nitrogen oxides, sulfur oxides and unburned hydrocarbon. ◆ The Quality Management Department is responsible for updating the vehicle emission standards with proper records. ◆ Procedure for complaint handling is in place with SCCHK’s management system. The responsible person is the Manager of Public Affairs & Communications. 															
<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"> ◆ SCCHK publishes energy consumption and greenhouse gas emissions data in its annual report ◆ SCCHK benchmarks energy consumption data with companies within the Coca-Cola system and across the beverages industry. ◆ As provided by SCCHK, the greenhouse gas ratio for production and the fuel ratio in 2011 reduced by 27.9% and 5.9% respectively as compared with 2009. ◆ Data comparison on Fuel Ratio and Greenhouse Gas Ratio for production is shown below: <table border="1" data-bbox="695 1207 1442 1516"> <thead> <tr> <th data-bbox="695 1207 906 1312">Indicator</th> <th data-bbox="906 1207 1027 1312">2009</th> <th data-bbox="1027 1207 1130 1312">2010</th> <th data-bbox="1130 1207 1240 1312">2011</th> <th data-bbox="1240 1207 1442 1312">Reduction (2011 vs 2009)</th> </tr> </thead> <tbody> <tr> <td data-bbox="695 1312 906 1413">GHG Ratio (Production) (CO₂ e g/L)</td> <td data-bbox="906 1312 1027 1413">86.89</td> <td data-bbox="1027 1312 1130 1413">64.09</td> <td data-bbox="1130 1312 1240 1413">62.67</td> <td data-bbox="1240 1312 1442 1413">27.9%</td> </tr> <tr> <td data-bbox="695 1413 906 1516">Fuel Ratio (L/m³ delivery)</td> <td data-bbox="906 1413 1027 1516">2.69</td> <td data-bbox="1027 1413 1130 1516">2.79</td> <td data-bbox="1130 1413 1240 1516">2.53</td> <td data-bbox="1240 1413 1442 1516">5.9%</td> </tr> </tbody> </table>	Indicator	2009	2010	2011	Reduction (2011 vs 2009)	GHG Ratio (Production) (CO ₂ e g/L)	86.89	64.09	62.67	27.9%	Fuel Ratio (L/m ³ delivery)	2.69	2.79	2.53	5.9%
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<p>4) Undertake to adopt energy-efficient measures in their operations.</p>	<p>There are a number of energy saving measures applied in SCCHK including:</p> <ul style="list-style-type: none"> ◆ A heat pump has been installed at the Can Line to replace the electricity-driven compressor for product cooling and generate hot water for warming the filled products at the same time. The annual electricity saving is around HK\$ 1 million.  <ul style="list-style-type: none"> ◆ SCCHK has replaced all pre-Euro (nos.16) and Euro I (nos. 52) trucks with diesel trucks meeting Euro-5 standard in its vehicle fleet modernisation programme.  <ul style="list-style-type: none"> ◆ An ultrasonic gas leakage detector has been installed on the air compressor to detect any gas leakage in the compressed air pipes and valves which reduces unnecessary wastage of compressed air. The

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	<p>estimated annual saving is around HK\$ 36,176.</p> <ul style="list-style-type: none"> ◆ In 2009, T8 tubes (nos. 1000) were replaced by T5 tubes (nos. 625) with \$98,975 annual electricity saving.  <ul style="list-style-type: none"> ◆ Remote lighting control has been adopted in office areas. 

Commitment	Action done
	<ul style="list-style-type: none"> ◆ A wind turbine has been installed at the roof top for generating renewable energy. 
<p>5) Identify and encourage business-relevant measures to be taken on days when air pollution is high.</p>	<ul style="list-style-type: none"> ◆ SCCHK have implemented a procedure to stop testing emergency generator when API is high.
<p>6) Share air quality expertise in business with others.</p>	<ul style="list-style-type: none"> ◆ Periodic meetings are held with other bottling plants within the Coca-Cola system and other companies within Swire group to share best practices. ◆ Environmental achievements and best practices have been reported in quarterly newsletter and annual report. ◆ SCCHK has been participating in Cathay Pacific's Fly Greener Programme since 2008 to offset the carbon emission resulted from staff overseas business travel.

3. CONCLUSION

The Swire Coca-Cola Hong Kong Limited has demonstrated their commitments towards the Clean Air Charter's commitments and is recommended to be certified under the Clean Air Charter.