## **CLP and Safety, Health and our Environment**



Little Egrets at the Ash Lagoon at Castle Peak Power Station

# Safety, health, and environmental responsibility are priority issues across the CLP Group.

These are driven by the corporate value framework and managed by integrated management systems, best practices and programmes in the respective business units with strong management leadership and support from the workforce.

## Safety, Health and Environmental (SHE) Excellence

The Operations Integrity Management System (OIMS) has been the overall management system framework for safety, health, environment and risk matters in our Hong Kong operations since 1993. The principles and elements of OIMS have now been further extended into our operations in the Mainland and Asia-Pacific region. In 2002, CLP established a synergy group across our major subsidiaries to facilitate sharing of SHE knowledge, experience and best practices. This shared commitment to SHE improvement was reflected in events such as:-

- The development of Group-wide management systems. Significant progress has been made in implementation of these systems at Yallourn, Ho-Ping, GPEC Power Stations and other joint ventures in the Chinese mainland.
- Joint knowledge sharing seminars, for example, the International Risk Management Seminar hosted by CLP Guohua, a joint venture company of CLP, was held in Beijing.
- In Hong Kong, fully integrated audits (combining OIMS, ISO14001, OHSAS18001, National Occupational Safety Association (NOSA), regulatory and other audit requirements) were successfully conducted for the three operational business groups.
- Shiheng Power Station was one of the first two power stations in the Chinese mainland to achieve the International First Class Power Station standard conferred by the State Power Corporation.

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### **Safety Performance**

At CLP, safety is of utmost importance. In 2002, the safety performance of CLP Power, measured by Disabling Injuries Incident Rate (DIIR) was 0.12 – the best performance since statistics first became available in early 1980's.



**CLP Safety Performance in Hong Kong** 

Our efforts to achieve safety excellence were recognised by success in the "Hong Kong Occupational Safety and Health Awards", jointly organised by the Hong Kong Occupational Safety & Health Council and the Labour Department.

CLP Power and a number of its operating units were awarded the Bunny Matthysen Trophy and the National Occupational Safety Credited Awards for 2001 for their excellence in occupational safety and health management in the past year based on the 2001 NOSA safety grading audit achievement.

GPEC in India, in which CLP holds an 80% interest, has been awarded the Royal Society for the Prevention of Accidents Gold Awards for safety in 2000, 2001 and 2002. GPEC has also maintained a zero incident frequency rate for more than 1,500 days and has established a benchmark for safety management in the power generation sector in India.

## **Electrical Safety**

CLP Power conducted a series of workshops and promotional campaigns to help our contractors, crane operators, truck drivers and the general public better understand the safety requirements under the Electricity Supply Lines (Protection) Regulation. We also promoted electricity safety at home to the general public through safety talks, game booths, safety quizzes and displays at community events.

#### **Environmental Stewardship**

To align with international best practices, our Hong Kong operations and many of our joint venture power stations were accredited ISO14001 certification on environmental management. Operating units, such as Castle Peak and Black Point Power Stations in Hong Kong, Yallourn Power Station in Australia and GPEC in



Monitoring water quality near Castle Peak Power Station

India, have been accredited for some years. The newly ISO14001 accredited power stations include Shiheng, Panshan, Sanhe, Yire and Shenmu in the Mainland, in which CLP has a joint venture interest.

Emission control has been a major environmental issue and a long-standing focus of management attention. In Hong Kong, CLP has achieved significant reductions in atmospheric emissions by implementing a multi-year fuel diversification strategy, along with other improvements in the generating plants.

#### **Emission Levels**

From power stations in Hong Kong operated by CLP Power



New initiatives launched by our joint venture companies outside Hong Kong to minimise emissions included:-

- Installation at Ho-Ping Power Station in Taiwan of flue gas desulphurisation and selective catalytic reduction at the two generating units; and
- Successful commissioning at Yire Power Station in the Chinese mainland of a flue gas desulphurisation plant on one of its generating units, with a sulphur dioxide removal efficiency of over 90%.



Installing active noise control on a transformer

Environmental management requires innovative approaches. The new "green" substation design and environmentally friendly cable laying technology in network development projects in Hong Kong were amongst the finalists in the Pacific Basin Economic Council's Environmental Award 2002. We have also adopted a new approach to managing vegetation alongside our power lines to enhance safety, system reliability and environmental friendliness.

CLP recognises the growing importance of the climate change issue, and has already made substantial reductions in the carbon intensity of our generating stations in Hong Kong. We will be taking further steps to manage both the environmental and business risks associated with the climate change issue. This is particularly challenging in connection with our operations in Australia, where the use of lignite fuel results in a relatively high carbon intensity, and where our stakeholders are also very concerned about the climate issue.

#### **Greening the Communities**

CLP continued its research into renewable energy systems. Our projects included a performance assessment and design upgrade to a hybrid renewable energy system at Shek Kwu Chau, Hong Kong. CLP Research Institute conducts these projects in collaboration with the Government and non-profit making organisations. The Castle Peak Power Company, in which CLP has a 40% stake, provided HK\$2 million of sponsorship to Civic Exchange (a Hong Kong non-governmental organisation) to support a study on regional air pollution in Hong Kong and the Pearl River Delta region. The study, led by respected scientists from Hong Kong, the Chinese mainland and the United States commenced in May 2002.

Pulverised fuel ash (PFA) is a waste product from burning coal. CLP, in collaboration with Taywood Engineering, concluded a long-term research study to validate the durability and benefits of PFA in concrete production. The wide acceptance of PFA concrete has maximised the reuse of PFA in the construction industries in Hong Kong.

#### **Reporting and Stakeholder Engagement**

Honesty and openness about the safety, health and environmental implications of our business contribute both to a constructive discussion of these issues and informed critical external review.

CLP responded to the International Carbon Disclosure Project, organised by a group of international investors, by providing information about its carbon emissions and the potential impacts of the climate issue on its business. The responses of CLP and other major companies are available on the Project's website (http://194.242.156.103/ cdproject/index.htm), along with the Project analysis of the implications of climate change for business. Last year, CLP Power published "Environmental, Health and Safety Review 2002: Your Energy Partner", tracking our performance and major initiatives on SHE issues in Hong Kong. A major step forward in our social and environmental disclosure has been the publication of the CLP Group's "Social and Environmental Report 2002" in February 2003, which covers these issues on a groupwide basis. This records both our achievements and shortcomings in managing the social and environmental implications of our business over the past two years. Both publications are available on our website.

CLP recognises that communication is a two-way process. In addition to reporting to and engaging with individual stakeholder groups, CLP sponsored a multisector stakeholder engagement workshop in Hong Kong last June. Feedback from this and other such events helps CLP better understand our stakeholders' priorities and their expectations of a socially responsible business.

CLP is committed to continuous improvement in our safety and environmental performance – and we shall continue to engage our stakeholders openly and report honestly on our progress.



CLP's display at the Hong Kong Flower Show 2002 featuring a wall made from recycled tyres