DEPARTMENT OF HEALTH ENVIRONMENTAL REPORT 2006-07

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1. <u>Environmental policy and objectives</u>

In support of the Government's commitment to set a good green example in environmental protection, DH implemented the Green Manager Scheme in November 1993 to enhance green housekeeping measures in the workplace.

In June 1996, DH issued a policy statement on environmental protection and assigned a Departmental Green Manager to promote corporate green culture within the department, remind staff of the department's environmental policy, enhance their awareness in green housekeeping practices, inspire their participation in green management programmes, initiate new action plans where appropriate in supporting the Government's long-term strategy on environmental protection and monitor the implementation of various green measures. Since 1998, DH has incorporated in its annual departmental report major green management initiatives and performance.

2. Staff participation

To enable the effective implementation of various green measures, staff's support and vigorous participation are of particular importance. In this regard, staff are always encouraged to give suggestions on new initiatives of green management through the Staff Suggestion Scheme. Over the years, many practicable green proposals put forth by staff have been adopted.

Heads of Service units have assigned energy wardens under their purview to monitor energy consumption in workplace and the implementation of various green housekeeping measures. By the end of 2006, over 200 energy wardens have been assigned.

3. Waste management

To enhance public awareness in separate waste recycling, DH has participated in the "Waste Separation and Recycling Campaign" since 2002. In 2006, waste separation bins were placed in 19 DH clinics and office floors to enable separate collection of waste paper, aluminium cans and plastic bottles by waste collectors for recycling, and a total 2 402 kg of waste papers were collected for recycling. In addition, empty toner cartridges of colour printers and laser printers have been separately collected for recycling.

DH follows the guidelines issued by the Environmental Protection Department (EPD) in packaging, labelling and storage of clinical wastes and chemical wastes. In this regard, clinical wastes, chemical wastes and domestic wastes arising from clinics or laboratories are segregated from each other. Clinical wastes such as sharps boxes, used dressings/swabs caked with blood and other potentially infected wastes are placed in red plastic waste bags, properly labelled, securely fastened and temporarily stored in the designated area before being carried away by clinical waste collectors for disposal. The designated area for clinical wastes storage is also provided with visibly clear warning sign, protected from water and rain, always kept clean and dry and secure from unauthorised persons.

To comply with the Waste Disposal (Chemical Waste) (General) Regulation, chemical wastes arising from clinics or laboratories are segregated from clinical wastes and domestic wastes, temporarily stored in a designated area which is only accessible by clinic staff and collected by the EPD's licensed collectors for disposal. Domestic wastes are placed in normal black plastic waste bags for disposal.

4. Economical use of paper

DH has adopted the following housing keeping measures to economise the use of paper:

- use blank side of used papers for printing or writing to reduce paper consumption;
- reuse envelopes and file jackets;
- use both sides of a paper for drafting and double-sided copying as far as possible;
- rollout e-Leave system for staff with electronic mail account to replace printed leave application form;
- avoid using fax leader page as far as possible;
- encourage staff to make better use of electronic means in disseminating health messages such as uploading publications onto departmental website and more frequent use of CD-ROM to keep printed publications to the minimum;
- maximize the use of Internet and electronic mail facilities for communication to replace hardcopies; and
- cease internal circulation of hardcopy of clinic time table, telephone directory etc to reduce paper consumption.

In addition, DH has adopted the following green initiatives to save paper:

- In 2001, the number of electronic mail users in DH was only 160. Through continued office automation, the number of electronic mail users in DH has increased to 1 500 and 1 767 in 2005 and 2006 respectively. It is expected that the number of electronic mail users will further increase in 2007.
- E-forms for various DH licensing applications have been made available to the public on the government's official website.

With staff's consort effort, the total envelopes and A4 papers consumption, as compared to 2005, was significantly reduced by 30% and 10% respectively in 2006.

5. Green purchase

DH supports the use of recycled papers. In 2004, recycled papers contributed only less than 30% of the total paper consumption. Up to the end of 2006, over 80% of the total paper consumption was recycled papers. The use of non-recycled wood-free papers was reduced accordingly. In addition, DH has implemented the following green procurement initiatives to support the use of environmental friendly products:

- plain paper fax machines to replace thermo fax machines so that making a second copy of the thermo fax for filing purpose is not required;
- photocopiers with double-side copying feature;
- clinical waste bags and sharps boxes which are not made from polyvinylchloride (PVC)
 materials and are capable of safely incineration;
- mercury-free blood pressure monitors and thermometers;
- LCD monitors to replace old CRT monitors for more effective energy saving; and
- recycled and reusable stationery and other office supplies such as refillable ball-pens,
 reusable toners and printer cartridges etc.

6. Environmental design in new projects

Green elements have been taken into consideration in the design of new clinic buildings, which include reducing the use of materials that could have adverse environmental impact and increasing the use of energy efficient plant and equipment. In accordance with standards of the Hong Kong – Building Environment Assessment Method (HK-BEAM) for New Office Designs, the Public Health Laboratory Centre (PHLC) designed by the Architectural Services Department (Arch SD) achieved excellent rating in terms of environmental performance in the building design based on assessment of the Business Environment Council. Credits of good environmental design of PHLC include:

- fitting with energy saving luminaries, heat recovery systems and energy efficient air-conditioning electricity consumption to reduce electricity energy consumption;
- adopting non-ozone depleting refrigerants and thermal insulation materials for building fabrics to avoid ozone depletion; and
- providing designated facilities and area for the storage and collection of recyclable materials.

7. Energy conservation

DH has adopted the following save energy measures:

- de-lamping lights to the minimum required for illumination and switching off lights and non-essential electrical appliances while not in use;
- conducting energy audit survey for individual clinic buildings of high energy consumption to identify practical and effective energy saving measures;
- modifying group lighting switches to individual switches;
- installing air curtains at clinic entrances to prevent infiltration of un-treated hot and cold air from outside;
- replacing magnetic ballasts by electronic ballasts and change T8 fluorescent tubes by the more efficient T5 fluorescent tubes;
- replacing conventional illumination signs of emergency exit in clinics by LED signs to step up measures in achieving energy saving; and
- maintaining indoor temperature at 25.5°C during summer months for general offices and public areas equipped with air-conditioning facilities provided that the normal operation of essential medical services will not be affected.

As PHLC accounts for approximately one-third of the total energy consumption of DH, the following improvement works have been carried out to the building to further enhance energy saving:

- installing separate A/C on/off and temperature controls in the conference room and the multi-functional hall;
- replacing tungsten halogen lamps at conference rooms with cool light type energy saving lamps;
- installing solar filtering films to interior of window glass panels for critical areas facing sunshine to reduce indoor temperature due to solar heat load; and
- rescheduling and optimising the operation of chiller plant, E&M plant and other building services facilities such as lifts.

After implementation of a series of energy saving measures, the electricity consumption of PHLC in 2006 was 16 888 027kWh, which is equivalent to a significant drop of 12.9% as compared to 2005.

In 2006, the overall energy consumption of DH was 59 089 712kWh, which represents a 1.14% drop as compared to the previous year. From 2003 to 2006, an accumulative drop of 4.42% in electricity consumption was recorded despite those factors which had unavoidably caused increasing demand in the use of electricity over the period, such as launching of new services, service expansion, new venues, additional E&M facilities and electrical equipment. Upon completion of all retrofit projects for enhancing energy efficiency and with the implementation of green housekeeping measures, it is expected that further energy saving can be achieved.

8. Air quality improvement

Being the Government's health adviser, DH has been taking a leading role in the smoke-free workplace policy since 1982. This policy has been applied to all DH institutions since 1996.

From both the green management and the infection control aspects, adequate fresh air ventilation in the working environment of clinics and health centres is important for protecting the health of staff and the public. Since 1999, Indoor Air Quality (IAQ) tests and cleaning of air-duct of A/C systems have been conducted by the Electrical and Mechanical Services Department (EMSD) periodically for DH clinics and offices to enhance the operational efficiency of A/C systems and to ensure adequate fresh air ventilation. By the end of 2003, IAQ tests and air-duct cleaning works were completed for all offices and clinic units once. Periodic IAQ tests and air duct cleaning works were then repeated for selected DH venues each year. In 2006, EMSD had conducted the second round of IAQ tests and air duct cleaning works for 14 venues.

To support reducing air pollution caused by exhaust emissions of vehicles, DH has taken the following measures:

- encouraging staff to make use of public transport while performing outdoor duties; and
- advising all drivers to switch off the car engine while waiting and issuing circular at regular intervals to remind them of this.

9. Tobacco control

Smoking is the largest single cause of death and diseases in Hong Kong. Tobacco smoke creates nicotine, carbon monoxide and respirable suspended particles (RSPs). Second-hand smoke is the main source of indoor air pollutant that leads to the high RSP concentration in the air. RSPs get into the lungs and cause damages to health, leading to respiratory problems and increase the risk of getting lung cancer.

Being the Government's health adviser, DH has been taking a leading role in the smoke-free workplace policy since 1982. This policy has been applied to all DH institutions since 1996.

In 2001, DH established the Tobacco Control Office (TCO) to coordinate and enhance the Government's tobacco control efforts, discourage smoking, contain proliferation of tobacco use, and protect the public from exposure to second hand smoke to the maximum extent.

Anti-smoking health education and promotion

TCO has been promoting a smoke-free culture to the public through the mass media. To raise the public awareness on the hazards of smoking and second-hand smoke, and the newly amended Smoking (Public Health) Ordinance, a publicity campaign entitled "I love smoke-free Hong Kong" has been started since 2005.

To enhance the knowledge of managers of no smoking areas and security guards of the Smoking (Public Health) Ordinance (Cap.371) and assist them to implement smoking ban in their premises, TCO organized various seminars to explain Smoking (Public Health) Ordinance and the harmful effects of smoking and second-hand smoke and to provide them Guidelines on handling smoking offences in no smoking areas and information on smoking cessation.

The TCO has also produced a wide variety of health education materials to promote smoke-free culture and assist managers of no smoking areas to implement smoke-free policy:

- Tobacco Control Bulletin which contains local and overseas news on tobacco control and information on smoking cessation for distributing at DH clinics and District Offices of Home Affair Department.
- Implementation guidelines on smoke-free policy for indoor workplaces, schools and restaurants to assist managers of working premises to implement smoke-free policy and comply with statutory requirements. Steps and techniques in implementing smoke-free policy in these premises are included in the guidelines.
- Pamphlets, posters and information kit for managers of no smoking areas, healthcare workers and the public. The contents of which include hazards of smoking and second-hand smoke, information on smoking cessation and law excerpts.
- Various no smoking signs, labels and items for managers of no smoking areas.
- Audio-visual materials for managers of statutory no smoking areas to broadcast or as training materials for organizations and businesses.

Organizations and businesses are welcome to apply for health education materials produced by the TCO.

Tobacco control resource centre

A tobacco control resource centre has been set up at 18/F Wu Chung House 213 Queen's Road East, Wan Chai, Hong Kong to provide comprehensive tobacco control information to the public and enhance their understanding on tobacco control legislations and the harmful effects of smoking. The centre holds a rich collection of information related to tobacco control, including Chinese and English publications, medical journals, articles, research reports, audio-visual materials. The public are welcome to visit the Centre.

Law enforcement

Tobacco Control Inspectors of the TCO have been conferred with powers to enforce the Smoking (Public Health) Ordinance (Cap. 371), to initiate prosecution against offences like smoking, displaying or publishing of tobacco advertisements.

More details of the TCO activities and the future development can be found in the website http://www.tco.gov.hk.