## **Chapter 1** Introduction

消防处的法定职责,是保障香港 市民的生命及财产, 免受火警及 其他灾难损害,同时为市民提供 紧急救护服务,以及就防火措施 提供意见。截至二零零七年十二 月三十一日,消防处辖下共有 8,720 名军装人员及 594 名文职 人员,管理 78 间消防局、36 个 救护站、5个办事处、4个消防车 辆维修工场、2 间训练学校及于 二零零六年十一月启用的西九龙 救援训练中心。新落成的深圳湾 消防局亦于二零零七年七月一日 为执行职责,部门管有 启用。 852 部消防车、救护车及支持车 辆,以及23艘灭火及救援船只。

The statutory duties of FSD are to protect life and property against fire and other calamities, provide emergency ambulance service and give advice on fire protection the measures for community. As at 31.12.2007, there were 8,720 uniformed members and 594 civilian staff working in the Department. We managed 78 fire stations, 36 ambulance depots, 5 office-based workplaces, 4 fire appliance workshops, training schools, and the West Kowloon Rescue Training commissioned in November 2006. newly built Shen Zhen Bay Fire Station was put into operation on 1.7.2007. To carry out our duties, the Department operated a fleet of 852 fire appliances, ambulances and supporting vehicles plus a fleet of 23 fire boats and rescue vessels.



深圳灣消防局 The Shen Zhen Bay Fire Station

二零零七年,消防处处理了31,638宗火警召唤、22,083宗特别服务召唤,当中包括工业意外、气体泄漏、山泥倾泻及水浸;以及611,707宗救护召唤。对于有特别火警风险的楼宇及处所,本处发出了2,996份消除火警危险通知书及11,951份消防安全指示/改善消防安全指示。

消防处作为提供紧急服务的部门,不单肩负救火及拯救工作,亦致力透过下列活动,达至环境保育效果:

- ◇ 减少事故对环境的破坏:
- ◆ 发展及采用可减少伤害环境 的救火策略、灭火煤体及工 具:
- ◆ 举行大型防止山火宣传活动,带出「防止山火」的讯息,从而减少山火的宗数,保护大自然的郊外;

◆ 处理涉及危险品或化学品事故,从而减低有害物料对环境的破坏;

In 2007, FSD responded to 31,638 fire calls, 22,083 special service calls which included industrial accidents, gas leakages, landslides and floods, as well as 611,707 ambulance calls. A total of 2,996 Fire Hazard Abatement Notices and 11,951 Fire Safety Directions/Fire Safety Improvement Directions were issued to owners/occupants of buildings and premises with special fire risks.

As an emergency service Department, FSD is not only responsible & fire-fighting rescue but also committed to the environmental protection through the following activities:

- to reduce the impact of incidents on the environment;
- to develop and adopt more environmentally friendly fire-fighting strategy, extinguishing medium and equipment;
- to launch hill fire prevention programme & publicity activities to disseminate hill fire prevention messages to the public for the purpose of reducing the number of hill fires, which in turn contributes to the conservation of our countryside;
- to handle incidents involving dangerous or chemical goods to minimize impacts of such hazardous materials on the environment;

- ◆ 着重防火,提供专业意见及 实施规管政策,以期减少火 警及可能引致的污染,如空 气及水源污染等。
- to put emphasis on fire prevention, advisory and regulatory roles aiming at reducing the number of fires, which would in turn reduce pollution to water, air, etc.

## 第2章 我们的承诺及环保政策

## **Chapter 2 Our Commitment and Environmental Policy**

#### 我们的承诺

我们致力保护环境。虽然面对资源限制,但我们为社会提供服务时,仍会在不影响核心服务的效率及成本效益的情况下,不断改善我们在环境保护方面的表现。我们已制定纾缓计划,减少在提供服务时可能会对环境造成的影响,计划内容如下:

采取适当的灭火措施,例如:

- ☆ 在处理火警时使用不会破坏 环境的灭火媒体:
- ☆ 避免在灭火时过量用水。

为紧急车辆召唤程序制定爱护环 境的指引,例如:

☆ 减低警报装置的声浪,例如消 防车或救护车在紧急召唤出 动时使用警号所产生的声响; 或减低消防局及救护站的广 播系统及自动折门所产生的 声响。

节约能源及资源: 例如:

#### **Our Commitment**

Despite constraint in resources, we are committed to protecting the environment and, accordingly, pursuing continual improvement in delivering our services to the community without compromising the efficiency and cost-effectiveness of our core functions. We have established mitigating programmes to reduce the impacts on the environment that may be caused during the delivery of our services. These include:

Adopting appropriate practices in fire fighting operations such as:

- with use environmentally friendly extinguishing media to tackle fires;
- avoid excessive use of water in fire suppression.

Establishing environmental care guidelines in the turn-out of emergency vehicles such as:

reduce noise generated from audio warning devices such as sirens of fire appliances & ambulances, or from our facilities like the PA systems and folding gates of fire stations and ambulance depots;

Reducing the use of energy and

#### resources such as:

☆ 透过减少、再用及循环来减少 能源及资源的使用。

minimize energy and resources consumption through reduction, reuse and recycling.

须符合有关法例的要求: 例如:

Meeting the legal and regulatory obligations such as:

- ☆ 减少及监察在执行任务时或 由机械及装备所产生的工业 废料。
- implement appropriate measures to handle wastes generated by operational activities, machineries or equipment.
- ☆ 减少消防车辆、船只及救护车 的气体排放。
- ☆ reduce emission from fire appliances, vessels & ambulances.

#### 环保政策

#### **Environmental Policy**

在执行行动或提供服务时,我们会采取对环境负责的态度。为此,我们致力:

We would act responsibly to the environment in carrying out operations and delivering services. To this end, we would endeavor to:-

- ☆ 遵守与本处有关的环保法规;
- comply with all the legal requirements for environmental protection;
- ☆ 尽量减少我们在执行职务和 工作时对环境所造成的影响, 并且防止污染及节省资源,包 括气体排放、产生噪音、排放 污水,以及处置废物;
- minimize environmental impacts, prevent pollution and conserve resources arising from our operations and activities in regard to air and noise emission, effluent discharge and the disposal of wastes;
- ☆ 监察及监管会对环境造成严 重影响的工作及行动,纠正以 往损害环境的做法;
- monitor and control the significant environmental impacts associated with our activities and operations,

correct past environmental abuses;

- ☆ 在本处的日常运作中采取物 尽其用及循环再用的原则:
- ☆ 提高本处员工的环保意识及 推行环保的能力,以及让员 工、承办商、供货商及市民了 解部门的环保政策及管理策 略:
- ☆ 支持公众环保计划及活动。

- Apply the principles of 'reducing, re-using and re-cycling' into our day-to-day operations;
- promote staff's awareness of and competence in environmental protection, and to communicate the department's environmental policy and management strategy to staff, contractors, suppliers and general public;
- support public environmental programmes and activities.

## 第3章 环境管理制度

## **Chapter 3** Environmental Management System

一九九五年,我们成立了环境审核委员会,由总部总区消防总长担任主席,而各有关总区的区长/救护监督,以及行政科的行政主任则获委任为委员。委员会的职权范围如下:

- ☆ 纠正以往损害环境的做法,并提高本处人员的环保意识:
- ☆ 防止日后出现破坏环境的做法,并鼓励属员减少浪费,以及循环再用资源;
- ☆ 进一步促进能源效益和 节约能源工作;
- ☆ 在本处执行及管理环保 工作,并且定期进行环境 审核: 以及
- ☆ 协调本处环境管理制度 的发展及推行。

同年,所有消防局及救护站 主管获指派为所属消防局及 救护站的单位环境审核员, 协助环境审核委员会发展及

In 1995. we have set up the Environmental Auditing Committee (EAC), chaired by the Chief Fire Officer (Headquarters) with Divisional Officers / Superintendent / Executive Officer appointed from respective and the Commands Administrative Division as members. The EAC has been empowered to:

- correct the practices that might harm the environment and enhance staff's environmental awareness:
- prevent future damage to the environment and encourage members of the Department to reduce waste and to recycle resources;
- further promote energy efficiency and conservation;
- conduct and administer the environmental work and periodic environmental audits in the Department; and
- co-ordinate the development and implementation of departmental environmental management systems.

In the same year, all fire station and ambulance depot commanders were appointed as Unit Environmental Auditors of their fire stations/ambulance 推行部门的环境审核及管理制度。

depots to assist the EAC in the development and implementation of the Department's environmental auditing management systems.

## 第4章 环保工作表现

## **Chapter 4 Environmental Performances**

#### 节约能源

## 监管制度

每个总区的参事官须担任节约能源主任,负责监管所管辖范围的处所的能源消耗情况。每个行动总区的单位环境审核员,亦须每月向所属总区总部提交能源消耗情况战告,以便监察。

### **Conservation of Energy**

The 78 fire stations and ambulance depots in the fire and ambulance Commands were the bases for the operational staff to deliver 24-hour services to the public. operation, greenhouse gas emission is primarily from energy consumption of Fire Stations and Ambulance Depots, equipment operation and use of fuels for our fleet vehicles. We have adopted measures to conserve energy at our workplaces and to reduce emission arising from the operation of our equipment and vehicles.

#### **Monitoring System**

The Staff Officer of each Command was appointed as Energy Economy Officer to monitor the energy consumption on the premises under his purview. The Unit Environmental Auditor of each operational unit was required to submit monthly energy consumption reports the Command Headquarters for monitoring purposes.

#### 节约能源措施

为了节约能源及保护环境, 本处所有单位,包括消防局、 救护站、写字楼及支持单位 的冷气系统运作温度均默认 为摄氏 25.5 度。部门亦己 经在各单位任命"节能大 使",提醒所有员工应经常 采取有效的环保节能措施, 例如在离开办公室前关掉所 有不必要的电灯、计算机、 打印机、风扇、冷气等。 视、计算机,以及其他电子 文仪设备,即使关掉,如果 处于备用状态, 仍会消耗电 源,特别是过夜或者是长假 期 毋 须 使 用 工 作 间 的 设 备, "节能大使" 所以 会鼓 励同事将毋须使用的电器电 源关掉。



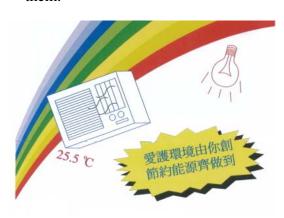
#### 辦公室內張貼温度計提醒同事把 冷氣調校至 25.5 度

Sticker with thermometer posted in the office to remind colleagues that air conditioners should be preset to 25.5 °C.

### Energy Measures

Saving

To preserve energy and protect our environment. the operating of conditioning temperature air systems of all units, including fire stations, ambulance depots, offices and other supporting units, was pre-fixed at 25.5°C. Energy Wardens were appointed in the offices to remind colleagues to comply with energy saving housekeeping measures e.g. turning off the light, the computer, printer, or switching off the fan or room cooler etc. before leaving their offices. Besides, staff were advised to unplug computer and electronic appliances at the power outlets when they were not in use, especially overnight and weekends when staff are not using them.



#### 救護站內張貼了海報勸籲同事多 採用環保節能措施

Poster at Ambulance Depot to remind colleagues of good energy saving housekeeping measures.

### 消防总部大厦节约能源

不少政府部门的办公大楼每年用电量超过500,000 千瓦小时,消防处总部大厦亦是其中之一。去年本处订下目标,计划在07/08年度减少总部大厦用电量0.5%。

The Energy Economy Officers conducted analysis on electricity bills for the major departmental venues to identify the large consumption users. Responsible venue staff (Station Commander / Depot Commander) were also requested to increase staff awareness and closely monitor the power consumption. In addition, tips on energy conservation were widely circulated to all staff to remind them their roles to play in energy consumption.

## **Energy Conservation of FSHQ Building**

The Fire Services Headquarters (FSHQ) Building is one of the major government buildings with annual electricity consumption exceeding 500,000kWh. Last year, we have set an energy saving target of reducing 0.5% of electricity consumption for the headquarters building in 2007/08.

To save energy in the FSHQ Building, we had replaced T8 fluorescent light fittings by more energy efficient T5 fluorescent light fittings in July 2007. Some existing light fittings had been wired into several circuit arrangements so that we could choose the number of fluorescent tubes to be switched on to control the illumination. Some elevators in the building were switched off during off-peak hours. We also promoted the motto of

升降机,从而「既可多做运动,又可减少消耗能源」。

本处安排适时维修保养楼宇设施,例如在零七年更换总部大厦两座新气冷式冷式冷的。 至于这个文章,改善「机械总部大厦的企业,改善「机械效益。 至于这个人。 一个人。 一个一。 一个一。 一个一。 一个一。 一个一。 一个一。 一个一。 一一一。 一一。 一一一。 一一。 一一一。 一一。 一一。 一一。 一一。 一一。 一一。 一一一。 一一。 一一一。 一一。 一一一。 一一一。 一一一。 一一一。 一一一。 一一一。 一一一。 一一一。 一一一。 一一。 一一。 一一。 一一。 一一一。 一一一。 一一一。 一一一。 一一一。 一一。  'more exercise; less energy' by encouraging staff walking up and down one or two floors instead of using elevators.

Besides, conducted we timely maintenance and repair to building facilities, e.g. two air-cooled chillers in the building were replaced in 2007 and the cleansing of all the air ducting by EMSD was arranged. Through these measures, the energy efficiency of the mechanical ventilation and air-conditioning system of the FSHQ Building was The improved greatly. consumption for the FSHQ Building in 2007/08 was 6,568,061 kWh. As compared to 7,130,014 kWh in 2006/07, an energy saving of 7.9% was achieved.



<u>Before</u> <u>After</u>

消防處總部大厦更換兩座新用空氣冷卻式水冷系統 Two Air-cooled chillers at FSHQ Building had been replaced

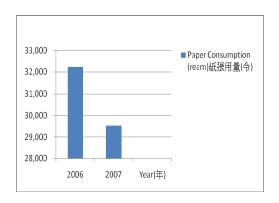
#### 电力消耗

透过羣策羣力,我们已成功 保持整体的用电量不超过现 有水平的目标。在二零零七

## **Electricity Consumption**

Through our concerted efforts in saving energy, we had achieved our overall target of not to exceed the / 零八年的用电量共32,361,643千瓦小时,较零六/零七年减少了 152,019千瓦小时。虽然部门的活动和运作增加,例如深圳湾消防局加入运作,整体上用电量仍然能获得节省。

#### 节约用纸



零六年至零七年减少纸张用量情况 Paper Consumption from 2006 to 2007

existing level of electricity consumption. Our total electricity consumption in 2007/08 was 32,361,643 kWh, which was 152,019 kWh less than that consumed in 2006/07. The overall electricity consumption of the Department had been reduced despite our operational activities had been increased, including the commissioning of the new Shen Zhen Bay Fire Station.

#### **Economy in the Use of Paper**

Paper is a valuable resource. would strive our best to adhere to the principles of Avoid, Reduce and Reuse/Recycle in the use of paper. in To keep pace with the E-Government strategy, implemented some computer-aided system and IT Programme such as the Electronic Submission of Administrative Correspondence Accessibility System and the Programme to reduce paper records and transactions Our total paper consumption in 2007 was reduced by 8.3% to 29,524 reams in comparison with 32,212 reams in 2006.

本处在减少用纸方面的一系 列环保措施胪列如下:

- ☆ 我们鼓勵员工利用内部 电子通讯发布通告、活动 电子便笺报告最新的等。 一种,想要要求的,我们将是是 外,我在部门电子报 数在部门电报 板上,以取代复制影印 本给使用者:
- ☆ 使用部门电子电话簿, 代替印刷本。
- ☆我们鼓励善用部门网页 向市民发放信息。例如 牌照及审批总区在一项 「精明规管」计划下, 自二零零六年起推行进 一步完善发牌程序的改 善措施,以便向有关行 业提供更快捷的审批服 务。部门把执行消防安 全政策与规例的资料、 管制危险品、消防装置 承办商注册程序的资料 放在部门网页『数据公 布』报告板上, 使市民 可以随时获得电子复 本,从而令信息更流通, 更能有效传递讯息。

Some of our measures implemented in 2007 to economize the use of paper are cited below:

- We encouraged our staff to issue e-copy of circulars / memos about activities or for gathering views and suggestion. Besides, we uploaded the information for sharing at the electronic bulletin of the intranet to replace the need for distribution of photocopies for individual users.
- Replacing the internal hardcopy telephone list with an electronic list.
- ☆ We made use of departmental homepages as an effective means to disseminate information to the public. For instance. & Licensing Certification Command has since 2006 launched improvement measures ' Be the Smart under the Regulator' Programme to further improve the licensing processes so as to enhance efficiency in service delivery to the relevant business sectors. Reference materials have been placed on the Department's homepages bulletin board - "Information Release" through which information about our licensing procedures, enforcement of fire safety regulations, control on dangerous goods and registration of fire

service installation contractors, are more readily accessible in electronic form. These measures have greatly enhanced the efficiency in information flow to meet the public needs.

☆ 如必须打印文件,我们鼓勵 员工采用简单步骤以尽量减 少用纸,例如: When printed documents are absolutely necessary, there are a number of easy steps that can be taken to reduce the amount of paper used, such as:

缩小篇幅可节省打印用纸, 改用小册子模式打印、压缩 多个画面放在一页打印、双 面打印或影印。使用有双面 打印功能的复印机。 rightsizing approach to save paper e.g. use of booklet, or multiple images per page printing pre-set function. Use double-sided printing or photocopying. Use photocopier machine with duplex capabilities;

使用追踪修定模式更改文件, 毋需逐次打印不同修定 文件。 using track changes for document amendments, to minimize printing of each amendment version; and

减少影印和避免印制过量复本;传真机使用一面已打印的纸张。利用已使用纸张空白的背面作接收传真、草拟及影印等用途;传真文件时,避免使用传真引页;

minimizing photocopies and avoiding producing excessive copies; practising double-sided photocopying or printing; using the blank side of used paper for receiving fax, drafting or photocopying; avoiding the use of fax cover sheets, etc.

☆ 循环使用旧的活页夹或循环 使用信封。 Reusing loose minute jackets and envelopes;

☆ 定期传阅有关节约用纸的电

☆ Promoting the message of

子通告,以提倡员工尽量减少用纸。我们鼓励员工「想清楚才打印」的习惯,如非必要,请切勿打印备存。

economizing paper consumption by regular circulation of electronic circulars to all staff. We encourage all users to adopt a "think before you print" practice, print only when absolutely necessary

#### 燃料消耗

消防处工程部及机电工程署 汽车维修部人员,定期检查 及维修所有消防车及救护 车,确保车辆机件性能良好, 避免消耗过量燃料。由 2007 年起,我们开始搜集有关燃 料消耗的资料,用以监察本 处车队在燃料消耗的表现。

本处驾驶训练学校的训练课程亦会向学员灌输"绿色"和环保的驾驶习惯。驾驶对质。驾驶对质。驾驶对质。驾驶出大军争时流低燃油虚耗。另外在上上,以避免时间。 接照射,以节省所需冷气。

#### **Consumption of Fuel**

To ensure that our fire appliances and ambulances are maintained at the optimum mechanical efficiency in regard to fuel consumption, all fire appliances and ambulances are inspected and serviced periodically by staff of the Fire Services Workshops and the Electrical & Mechanical Services Department Workshops respectively. Starting from 2007, we have gathered relevant data of our fleet to monitor their performance on fuel consumption.

We have promoted the "green" and environmentally friendly driving habits through the training sessions at the Fire Services Driving Training All drivers had been School. advised to use the vehicle air conditioner sparingly so as to reduce fuel consumption. Besides, the vehicle should be parked in the shade to keep the car cool which would in turn reduce the need for air conditioning.

#### 减少噪音影响

当消防或救护车被紧急召唤时,消防局/救护站内的紧急广播系统、自动折门,号户播系统、自动折门等号。及消防车/救护车的警音的噪音上下,到会产生不同程度的,消防车上下,消减吸音措施:

## 消防局及救护站的紧急广播 系统

☆ 本处已向所有行动单位 发出指示,在夜间把紧急 广播系统的音量调低,尽 量减少对附近居民的噪 音滋扰。

#### 消防车及救护车警号的使用

#### **Reduction of Noise Impact**

Noise would inevitably be generated emergency broadcasting systems and automatic the at fire stations / folding-doors ambulance depots as well as the sirens of the fire appliances / ambulances in responding emergency calls. We implemented the following mitigating measures to reduce the noise levels:

# Emergency Broadcasting System in Fire Stations and Ambulance Depots

instructions were issued to all operational units to tune down the volume of the emergency broadcasting systems during night time to minimize noise nuisance to nearby residents.

## Use of Siren by Fire Appliances and Ambulances

the purpose of using siren by fire appliances or ambulances on their way to the scene of emergency was to expedite their arrival. The sound of siren would give reassurance to persons awaiting assistance or rescue. However, it would unavoidably cause nuisance to the public. With a view to striking a balance, the Department replaced the sirens on

车辆主管认为毋须使用 最大音量时,可予以调 低。 本处亦向所有行动 人员发出指示,说明如何 妥善使用警号。 all fire appliances and ambulances with volume-adjustable ones in 1999 to enable the officers-in-charge to tune down the sound level when full volume was not required. Instructions on the proper use of siren were also issued to all operational staff.

#### 消防局/救护站的自动折门

## **Automatic Folding Doors of Fire Stations and Ambulance Depots**

☆ to address the complaints of noise originated from the operation of folding doors, variable speed drive had been installed as a mitigation measure on automatic folding doors. Seventy fire stations and ambulance depots, topographically close to residential areas, had been installed with variable speed drive on their automatic folding doors. Moreover, Planning Group of this Department has also included such device in the design of all new fire stations and ambulance depots.



Folding gates at Fire Station installed with noise mitigation measure 設有減低噪音裝置自動摺門的消防局

☆ 本处在二零零七年只接 获一宗市民提出有关自 动折门发出噪音的投诉。 部门已安排维修,减低有 关自动折门操作时产生 的噪音。

## 改善空气质素

#### 控制车辆的废气排放

由于我们经常使用车辆提供 紧急服务,因此须密切监控 消防车排放废气的水平。 们已透过改装现有车辆、 们已透过改装现有车辆、 等维修车辆和制定适当采购 政策,尽量减低车辆废气所 造成的环境影响。

在车辆进行一般维修检查时,工程部的同事会进行车辆气体(燃释气体分析)测试及柴油气车排放(黑烟密度)测试,以确保车辆排放符合法例的要求。如果发现车辆测试不合格,会实时进行复修性车辆保养工程。

☼ Only one complaint against the noise caused by the automatic folding doors was received in 2007. Proper maintenance to the folding gate concerned was arranged to mitigate the noise level in its operation.

#### **Improving the Air Quality**

#### **Vehicle Emission Control**

As our emergency services involved frequent use of vehicles, we have closely monitored the emission level of all fire appliances and ambulances through modification of our existing appliances, proper vehicle servicing and procurement policy.

Our workshop staff have conducted the Vehicle Emission (Gases Analysis) tests / Diesel Vehicle Emission(Smoke Density) tests in the routine maintenance and servicing to ensure that the emission of our fleet was in full compliance with legal requirements. If non-compliance was found, corrective maintenance would be conducted accordingly.



工程部屬員進行柴油氣車排放(黑煙密度)測試 Workshop staff Conducted Diesel Vehicle Emission(Smoke Density) Test

#### 汽车排气设备

所有新的消防局及救护站均 已在车房安装废气设备,例 如旺角救护站、葵涌救护站 及九龙塘消防局暨救护站。 有关设备可以把消防车及救护车引擎排放抽走,从而改 善工作地点之空气质素。

#### **Vehicle Exhaust System**

All new fire stations and ambulance depots such as Mongkok Ambulance Depot, Kwai Chung Ambulance Depot and Kowloon Tong Fire Station-cum-Ambulance Depot were equipped with fume exhaust system at the appliance rooms. The system served to extract exhausts from engines of fire appliances and ambulances and thus improved air quality in the workplace.

#### 九龍塘消防局暨救護站的汽車排氣設備

Vehicle Exhaust System at Kowloon Tong Fire Station cum Ambulance Depot,



#### **Vapour Recovery System**

order to comply with the requirements of the Air Pollution Control (Petrol Filling Stations) (Vapour Recovery) Regulation enacted in 2005, the Department had entrusted EMSD to implement a phased programme for installing Phase II Vapour Recovery Systems (VRS) in all petrol filling stations in our fire stations / ambulance depots. By the end of March 2008, all our petrol filling stations will be installed with the VRS. Such a system will help to reduce climate damaging volatile hydrocarbon emission into the atmosphere.



安裝在消防局/救護站的汽油加油站之氣體回收系統 Vapour Recovery System installed at petrol filling station of fire station/ambulance depot

#### 废物管理

#### 废物分类及循环再用

把废物回收的环保做法,人人有责,循环再用可以保护地球,把废物再用可减少堆填区须接收的废物。本处鼓励全体人员参与废物分类及循环再用计划,并于二零零七年在工作间收集了16,624公斤可循环再用的废纸。

#### 化学废物

根据《废物处置条例》(第 354 章)的《废物处置(化学废物)(一般)规例》,本处共有116 个单位登记为化学废物产生者。本处亦已安排注册化学废物收集商,收集该等单位所产生的化学废物。

在二零零七年,本处交由合资格承办商回收处理的化油、电池型的化油、电池流车的水型的水油、碱性废引擎冷却剂、碱性废汽车。电池电解液,合共47,100公升。此外,亦回收一些固每桶200公升)沾有机油的布碎和10桶(每桶200公升)沾有机油的废弃过滤芯。

#### **Management of Wastes**

#### **Waste Separation and Recycling**

The environmental practice of recycling, reuse of materials to save the earth and diverting wastes for reuse instead of landfilling, is everyone's duty and responsibility. In this regard, all members are encouraged to take part in the waste separation and recycling programme. In 2007, a total of 16,624 kg of paper was collected from our workplaces for recycling.

#### **Chemical Waste**

A total of 116 units in the Department have been registered as Chemical Waste Producers under the Waste Disposal (Chemical Waste) (General) Regulation of the Waste Disposal Ordinance (Chapter 354). Proper arrangement has been made with registered chemical waste collecting contractors to collect the chemical waste produced in these units.

In 2007, a total of 47,100 litres of liquid chemical waste e.g. used lubricating oil and transformer oil, cooling water, spent battery alkaline electrolyte was collected by the approved contractor for recycling and disposal. Besides, a total of 19 drums (200 litres per drum) of cloth, rags soaked with lubricating oil and 10 drums (200 litres per drum) of

spent filter with lubricating oil were collected

#### 医疗废物

救护人员在提供救护及辅助 医疗服务时所收集及制造的 医疗废物,会妥善放置在医 院的医疗废物箱。



#### 家居废物回收

本处为支持环保署在政府宿舍及屋邨举办的「家居废物源头分类计划」,己在不会引致阻塞消防安全路线的情况下,在消防宿舍大厦电梯大下,在消防宿舍大厦电梯大堂、垃圾房或楼梯,设置废物分类回收桶。

#### **Medical Waste**

Medical wastes collected and generated in the course of providing ambulance and paramedic services by the ambulance staff were properly disposed of in the infectious waste containers of hospitals.

## 用以盛載使用過的尖剌器 具的容器

Sharps Receptacle to collect contaminated sharp objects.

#### **Domestic Waste Recovery**

We are a supporter of EPD's Programme on Sources Separation of Domestic Waste in government quarters and other estates. Suitable waste separation bins have been placed at lift lobby areas / refuse rooms or staircases of the FSD Quarters Buildings.

Many FSD Government Quarters have joined the above Programme and the result was very encouraging. For example, Tsueng Kwan O Fire Services Quarters had won the Bronze Award, and several quarters had won Certificates of Merit including Wong Tai Sin Fire Services Quarters, Wing Ting Road Fire Services Quarters, Pokfulam Fire

人员宿舍。



Station Officers Married Quarters, Sai Ying Pun Post Office Building(FSD married quarters), Chai Wan Fire Services Rank & File Married Quarters.

## 消防處政府宿舍在「家居 廢物源頭分類計劃」榮獲 多個獎項

FSD quarters obtained
Certificates of Merit /the Bronze
Award under The Programme on
Sources Separation of Domestic

## 第5章 环保采购政策

## **Chapter 5** Green Procurement Policy

为持续改善环境,消防处已 在投标规格要求方面采用 环保措施。在这套采购政策 下,本处将会采购多辆符合 欧盟 IV 或以上的排放标准 的消防及救护车。

另一方面,本处在二零零七年参加使用环保汽车试验计划,有两辆环保车完成试验使用。日后在更换旧车时,部门会考虑购买这些较环保的车辆。

在采购时,我们会尽量考虑 环保因素,例如能源效益及 循环再用问题等。此外,本 处会尽量考虑依照政府物 流服务署的环保产品列表, 采购消耗品。

在二零零七年至二零零八年,我们采用了约 1,705 个循环再造的打印机碳粉盒,又安排承办商回收 1,007 个已使用的打印机碳粉盒。我们在二零零七年订定维修保养合约时,已经把这种环

For continual improvement, green procurement measures have been incorporated in tender specifications. Under such procurement policy, fire appliances and ambulances in compliance with Euro IV or above emission standards would be procured to replace the aged vehicles.

In addition, the trial use of the 2 hybrid cars was completed in 2007. We would consider replacing our saloon cars with these environmentally friendly vehicles when the former are due for replacement.

In the procurement of products, we would take into account environmental factors such as energy efficiency and recyclability as far as practicable. Moreover, consideration would also be given to procure consumable items from the Green Products List of the Government Logistics Department.

In 2007/08, we acquired 1,705 nos. of recycle toners cartridges for use and 1,007 used toners were collected by the contractors. During the renewal of maintenance contract, recycling of used toner cartridges for facsimile machines was arranged in 2007.

保做法推广至回收传真机的碳粉盒。再者,我们安排供货商在二零零八年初回收 900 枚耗尽的手提无线电通话机电池。

Furthermore, 900 nos. of handheld radio batteries were collected by the supplier for recycling in early 2008.

长寿的发光二极管(LED)灯已逐渐引入安装在新救护车及消防車上,进一步减少车上耗电及灯泡损耗量。截至二零零七年年底,消防处有100部车辆安装了LED灯。

Long-life LED lights have been introduced in new ambulances and fire appliances for reducing electricity consumption and bulbs replacement. By the end of 2007, about 100 ambulances and fire appliances were equipped with LED lights.



救护车安装了发光二极管灯 Ambulance installed with LED lamps

消防处逐渐以数码相机取代传统菲林相机后,已成功减少使用菲林、底片及相片的数量。在二零零七年,本处共使用了200卷菲林,相对于二零零六年使用的300卷,减少了百分之五十。

With the increasing use of digital cameras to replace conventional film cameras, the Department has successfully reduced the number of films, negative and photo prints. In 2007, a total of 200 rolls of films were consumed, representing a decrease of 50% when compared with the total consumption of 300 rolls in 2006.

## 第6章 二零零七年主要环保措施

## **Chapter 6** Major Environmental Initiatives in 2007

#### 「零山火计划」

为保护大自然,部门于二零零七年推行全新的防止山火宣传策略-「零山火计划」,提高乡效居民对山火隐患的警觉性。

过往的数据显示,大部分的山林火都在清明节及重阳节期间发生。 有见及此,消防处举办「零山火计划」的目的,是鼓励全港的乡村参与防止山火,务求羣策羣力,大幅减少山林火发生,为保护环境而各尽一分力。

#### "Zero" Hill Fire Scheme

With a view to protecting our countryside, the Department has launched the "Zero Hill Fire Scheme" in 2007 which was a campaign strategy to engage the rural community to increase their awareness of the hazards of hill fires.

It was shown in the past that most hill fires occurred around Ching Ming Festival and Chung Yeung Festival. The Campaign, "Zero Hill Fire Scheme", was aimed to encourage all rural villages in Hong Kong to participate in the prevention of hill fires. We hoped that with the concerted effort of all villages, we could better protect our countryside by reducing significantly the number of hill fires.

All participating villages would undertake that there would be no hill fire within their village area during a designated period of 60 hours around the Ching Ming Festival and Chung Yeung Festival. A certificate endorsed by the Director of Fire Services would be awarded as a token of appreciation to those villages which had succeeded in their undertaking. In 2007, there were a total of 319 participating villages, among which 308 villages had succeeded their in

undertaking. We were pleased to note that the number of hill fire occurred during the two festivals were reduced greatly.



消防屬員向掃墓的市民派發防止山火的宣傳單張 FSD staff Distributing leaflets on Hillfire Prevention to gravesweepers

#### 改善室内空气质素

本处于二零零七年参加室内空气质素检定计划。 该计划属于自愿参与及自我监管性质。空气质素指标分为两个级别,即「卓越级」或「良好级」。计划适用于设置有中央空调

#### **Indoor Air Quality Improvement**

To echo government policy on improving Indoor Air Quality Control, the Department has looked into various options to enhance the indoor quality of its premises. We have implemented a number of measures in 2007 such as exploring tools / equipment available in the market which would reduce the level of indoor air pollutants, arranging cleansing of air ducts to improve the MVAC system etc.

We joined the Indoor Air Quality Certification Scheme in 2007. The Scheme was operated on a voluntary and self-regulatory basis. It had 2 levels of benchmark for evaluating IAQ namely, the 'Excellent' Class and 'Good' Class,

系统的大厦。 本处以下物业 在二零零七/零八年度获得 「良好级室内空气」的认证:

- ◆ 消防处总部大厦
- ◆ 尖东消防局
- ◆ 葵涌消防局
- ◆ 石硖尾消防局
- ◆ 荔景消防局
- ◆ 长沙湾救护站

0

消防處總部大廈的室內空氣質 素檢定認證書 The IAQ Certification for FSHQ Building and the Scheme was applicable to building which had centralized air conditioning system. The Department had acquired "good air quality" certification for the following premises in the year of 2007/2008:-

- ◆ FSHQ Building
- ◆ Tsim Tung Fire Station
- ♦ Kwai Chung Fire Station
- ◆ Shek Kip Mei Fire Station
- Lai King Fire Station
- Cheung Sha Wan Ambulance Depot.



## 消防局/救护站的天台绿化 工程

为配合环保绿化政策,新落成的消防局/救护站亦在设计上加入可持续发展的绿色元素,例如在新落成的九龙塘消防局暨救护站的天台增建园林设施。

## **Green Roofing of Fire Station and Ambulance Depot**

In line with the green policy, sustainable green concept in the design would be incorporated into new fire stations / ambulance depots. The landscaping on roof of the newly built Kowloon Tong Fire Station cum Ambulance Depot was one of the examples.



九龍塘消防局暨救護站的天台花園 The roof garden at Kowloon Tong Fire Station cum Ambulance Depot

部门亦向建筑处建议,可考虑在十四个消防处处所作试点推行天台绿化工程。 在二零零七/零八年度,以下四个选址的天台绿化工程已竣工:-

- (1) 港湾消防局
- (2) 中区消防局
- (3) 薄扶林救护站
- (4) 大埔救护站

绿化植物及土壤层于屋顶造成隔热,某程度上可减少能源消耗。

We have also drawn up a list of 14 Fire Services premises for implementation of the green roofing for the consideration of ASD. In 2007/08, green roofing system was implemented in the following selected venues:-

- (1) Kong Wan Fire Station
- (2) Central Fire Station
- (3) Pokfulam Ambulance Depot
- (4) Tai Po Ambulance Depot

The green roof substrate soil and vegetation would bring positive effect to urban climatic change by reducing a certain degree of energy demand through direct shading and better insulation of the roof.



港灣消防局(圖左)、中區消防局 (圖右)屋頂的綠化天台

The Green roofs at Kwong Wan Fire Station (left photo) and the Central Fire Station (right photo)



大埔救護站(圖左)、薄扶林救護站 (圖右)屋頂的綠化天台

The Green roofs at Tai Po Ambulance Depot (left photo) and the Pokfulam Ambulance Depot (right photo)

于二零零八/零九年度纳入绿化天台工程的消防处建筑物胪列如下:-

- 青衣消防局
- 元朗分区消防局(训练大楼)
- 沙田救护站
- 粉岭消防局

The following Fire Services buildings were selected for implementation of green roofing in 2008/09:-

- Tsing Yi Fire Station
- Yuen Long Divisional Fire Station (Rescue Training Centre only)
- Shatin Ambulance Depot
- Fanling Fire Station.

## 第7章 蓝天行动及清新空气约章

## **Chapter 7** Blue Sky Action and the Clean Air Charter

#### 蓝天行动

- ☆ 在等候时关掉车辆引擎;
- ☆ 鼓励属员以公共交通工 具取代私家车上下班,尤 其是在空气质素欠佳的 日子;
- ☆ 避免在空气质素欠佳的 日子使用以内燃机推动 的设备进行训练及演习;
- ☆ 利用电风扇补充冷气机 的冷冻效果:
- ☆ 重新编排客货车的路线 及工作时间表,避免多余

#### **Blue Sky Action**

The Department is in support of the 'Action Blue Sky' campaign launched by Command Environmental EPD. Auditors have been invited to review operations and daily activities conducted in respective Commands critically and put forward measures that are conducive to building up a Blue Sky in Hong Kong. Members of the Department have also been reminded to observe the following measures that would help reduce emission from our vehicles, vessels and internal combustion engine driven equipment:

- switching off the vehicle engine whilst waiting;
- members are encouraged to use public transport instead of private car for journey between home to office especially in days of poor air quality;
- training and drills involving equipment with internal combustion engines should be avoided in days of poor air quality;
- \( \sqrt{\text{use of electric fans to complement}} \)
  the cooling effect of air-conditioners;
- ☆ routing and schedule of the Messenger Vans should be

的行程;

☆ 尽量减少车辆或船只的 测试时间或发动机慢车 的时间;及

☆车辆的轮胎要适当充气。

## 清新空气约章

为执行约章的承诺宣言, 本处已于二零零七年成立能 源及排放管理小组, 成员 来自各总区的代表及工程组 的机电工程师。

## 能 源 及 排 放 管 理 小 组 二 零 零七年工作目标及成效

☆ 管理小组订下工作方案, 以监察「非紧急车辆」的 每月耗燃油量(电油、柴 油),并按车种、引擎容 rearranged to avoid unnecessary journey;

- the testing time / engine idling time of vehicles / vessel should be minimized as far as practicable; and
- the tires of vehicles should be properly inflated.

#### **Clean Air Charter**

To fulfil the commitments under the Clean Air Charter, the Department in 2007 set up an Energy and Emission Management (EEM) Team with representatives from different Commands and the Workshop.

The EEM Team has been tasked to identify gas emissions and energy consumption, establishing energy / emissions reduction targets, designing and implementing measures to reduce emission and minimize energy consumption. In addition to reporting the achievement to the Environmental Auditing Committee, the EEM Team would also provide briefings to our staff in raising staff awareness of and enthusiasm for clean air targets.

## Targets and Achievements in 2007 of the EEM Team

The EEM Team set the target to monitor the monthly fuel( petrol and diesel) consumption of non emergency vehicles, to work out the

量分类计算平均每 100 公里的耗油量。收集各总区的「非紧急车辆」,分类资料。日后根据有关数据,厘定同类型车辆的基准,与其他部门同类型车辆比较燃油消耗量表现,作出分析报告。

☆ 在能源及排放小组的推 动下,本处设立了网上报 告车辆使用和燃油放益 监察系统。该系统有助车 监察系统。该系统有助车 辆管理经理追踪车辆的 使用和燃油的效益;比令车 辆使用更明智。

HH	它單位標準	EF 11-840	,	-	M 35		車公里分	71	
	C3-1-18-18-1	13GIA			選擇一般	用途	車類: MPV ▼		
						椒	先表		
	制造	型盤	年份	燃油	引擎容量	車數	每月平均行車里 數	每月平均耗油 量	平均每公升油行車 公里 内部標竿
選擇	FORD	Econovan SJ93	2003	P	1998	6	1,708	243	7.04
選擇	FORD	Econovan SJ93	2005	p	1998	8	2,218	307	7.21
選擇	FORD	Econovan SJ93	2006	p	1998	4	1,670	223	7.49
選擇	MAZDA	E2000	1997	P	1998	1	1,389	229	6.07
選擇	MAZDA	E2000	1999	p	1998	6	1,885	263	7.17
選擇	MAZDA	E2000	2000	p	1998	9	1,365	210	6.50
選擇	MAZDA	E2000	2001	P	1998	3	2,658	404	6.58

☆ 小组就仓内含挥发性有 机化合物成份的物品,列 出清单监控用量,例如涂 改液的稀释剂已经不再 采用。 average consumption (litres/100km) by vehicle types / model, engine size. Through the data gathered, we would work out the indicators of the fuel efficiency of similar category of vehicles, which would form the basis for further analysis or benchmarking our fuel usage.

The Fleet Utilization and Fuel Efficiency Monitoring System was a web-base reporting and monitoring system initiated by the EEM Team. Through this web-base reporting and monitoring system, our fleet managers could promptly keep trace on their fleet utilization and fuel efficiency. Benchmark comparison could be made to ensure smart usage.

#### 內聯網公布耗油與行 車里數分析資料庫

Fuel Consumption and Mileage Analysis Database at the Intranet

The EEM Team had also scrutinized the supply lists of the Fire Services Stores and exercised control over the use of store items containing volatile organic compounds. For example, correction fluid would no longer be supplied.

## 第8章 加强员工环保意识的训练

## **Chapter 8** Staff Awareness Training

Members' willingness to participate in green initiatives is crucial to the success in building a green culture in the Department. With a view to fostering staff involvement, the Environmental Auditing Committee has compiled a Departmental Manual on Environmental Management to remind and assist members in this regard. We would ensure that all staff have the necessary skills, knowledge and understanding to support the stated objectives and targets.

Environmental Management Teams of Commands / Units have periodically conducted internal auditing performance, and made sure that the targets are kept on track. The Environmental Auditing Committee corrective and suggests preventive actions if any irregularity is identified. From time to time, the Environmental Auditing Committee reminds members by issuing green tips and best practices housekeeping through Members are also reminded to make continuous effort towards a greener workplace.

To foster the culture of environmental management protection in the Department, Environmental Auditors or relevant supervisors or EEM Team members have been nominated to attend briefings and experience sharing workshops on the relevant legislative initiatives or green management measures organized by EPD and EMSD, e.g. briefings by EMSD in August 2007 on the Energy Consumption Reporting. It would certainly help promote the cultural changes such that environmental management would be fully integrated in our operational activities.

## 第9章 目标及措施

## **Chapter 9** Targets and Initiatives

本处二零零七年的环保管理 工作进展良好,大部分目标 均已达到。为不断改善保持 环保管理的工作,推广环保 意识,本处已制定二零零八 年的工作目标,详情如下: We had made satisfactory progress in meeting the environmental management targets in 2007. To keep up continual improvement in green management and to promote a green culture, we have set for ourselves the following targets and initiatives for 2008:

### 节约用电

#### **Saving of Electricity**

Energy savings or improved energy efficiency would help reduce greenhouse gas emission and alleviate global warming. In this respect, we would continue to implement energy saving measures, monitor performance of energy efficiency and carry out energy auditing in major buildings to identify any potential energy management opportunities. We would continue to explore green housekeeping practices and to minimize the use of energy and other resources in our offices.

## 节约用纸

鉴于《消防安全(建筑物)条例》(第572章)已于二零零七年七月一日实施,本处可能须向9,000名左右的旧式综合用途楼宇业主或占用人签发大量消防安全指示印刷

## **Saving of Paper**

The Fire Safety (Buildings) Ordinance (Cap 572) was enacted on 1 July 2007. It was anticipated that a lot of paper-based fire safety directions might need to be issued to the owners and occupiers of some 9,000 old composite

刊物,要求他们改善建筑物的消防安全水平。不过,尽管用纸量无可避免有所增加,部门仍然希望设法控制增幅,以维持部门服务所需。

我们尽量减少出版印刷刊物,改为采用制作光盘方式; 又鼓勵同事多利用电子方式、传递信息和公布有用的信息。

#### 天台绿化工程

我们与负责保养的单位紧密合作,为所挑选的消防局和救护站推行天台绿化工程。 天台种植不但有美化环境的价值,更能为建筑物提供隔热效用。

## 改善室内空气质素

buildings, requiring them to improve the fire safety standards of the buildings. Nonetheless, we would endeavor to control the extent of unavoidable increase in paper consumption while meeting our service needs.

We would make every endeavor to reduce paper consumption through production of soft copies and development of electronic systems for communication and dissemination of information.

#### **Green Roofing System**

We would work closely with our maintenance agent to implement green roofing system at selected fire stations and ambulance depots. The growing of plants on roofs would not only give aesthetic value to the environment, but also provide insulation effect to the building.

### Improving indoor air quality

To help maintain good air quality, we would continue to participate in the Indoor Air Quality (IAQ) Certification Scheme organized by Environmental Protection Department for selected venues. With the experience gained from completed projects in 2007, we would consider to extend the IAQ scheme to other fire stations and ambulance depots.

## 索取资料的途径

## **Chapter 10 Sources of More Information**

如果需要更多有关数据,请 致电 2733 7820 查询,或致 函消防处,地址如下: For more information, please give us a call at 2733 7820 or write to us at:

香港 九龙 尖沙咀东部 康庄道1道 消防处总部大厦 消防处 Fire Services Department
Fire Services Headquarters Building
1 Hong Chong Road
Tsim Sha Tsui East
Kowloon
Hong Kong

你亦可浏览消防处网址:

You may also visit our Web Site at:

#### http://www.hkfsd.gov.hk

欢迎你提出宝贵意见。你可填写 夹附的响应表格,然后邮寄至上 述地址,亦可电邮至下列地址: http://www.hkfsd.gov.hk

Your valuable comments are most welcome. You may send them by mail and by using the enclosed feedback form to the above address or by email to:

hkfsdenq@hkfsd.gov.hk

hkfsdeng@hkfsd.gov.hk

## 我们重视你的意见

你的宝贵意见有助我们改善环保管理制度 (请填妥以下问卷,并传真至消防处总部管理组,传真号码: 2739 5879)

1.	这份报告书 □ 是	能否提供所有你想知道的香料	港消防事务环保数据? □ 否	
2.	如果上题所:		我们在下一份环保报告书内加	
3.	口 太短	的整体篇幅及内容如何? □ 太长 —————	□ 适中	
4.	其他意见:			
5.	你属于那个 □ 市民 □ 公务员	团体 ? □ □	1 21—	
*	如果希望我们	]回复,请提供以下数据:		
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## Feedback Form

#### YOUR OPINION IS IMPORTANT TO US

## We value your opinion as a way to improve our Environmental Management System

(Please complete the questionnaire and return it to Fire Services Headquarters, Management Group by Fax. No. 2739 5879)

1.	Does the report provide you w know in relation to Fire Service  Yes		ronmental Protection information that you want to ag?  No					
2.	2. If your answer to question 1 is "No", what additional information will you want us to include our next Environmental Report?							
3.	How is the overall length and o	Too long	eport?  About Right					
4.	Other comment:							
<b>5</b> .	What is your affiliation?  ☐ Member of the Public ☐ Civil Servant  If you want us to respond to you,	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	Environmental Protection Group Member  Others:					
	me):	-	e tonowing information.					