the Environmental Report

<u></u> 目錄		真
處長的話		1
第1章	引言	2 - 4
第2章	我們的承諾及環保政策	5 - 7
第3章	環境管理制度	8 - 9
第4章	環境工作表現	10 - 25
第5章	環保採購政策	26 - 27
第6章	二零零七年環保的行動	28 - 32
第7章	藍天行動及清新空氣約章	33 - 35
第8章	加強員工環保意識的訓練	36 - 37
第9章	目標及措施	38 - 39
第10章	索取資料的途徑	40
	回應表格	41-42
Table of Co	<u>ontents</u>	Page
Director's Mo	essage	1
Chapter 1	Introduction	2 - 4
Chapter 2	Our Commitment and Environmental Policy	5 - 7
Chapter 3	Environmental Management System	8 - 9
Chapter 4	Environmental Performances	10 - 25
Chapter 5	Green Procurement Policy	26 - 27
Chapter 6	Major Environment Initiatives in 2007	28 - 32
Chapter 7	Blue Sky Action and the Clean Air Charter	33 - 35
Chapter 8	Staff Awareness Training	36 - 37
Chapter 9	Targets and Initiatives	38 - 39
Chapter 10	Sources of More Information	40
	Sources of whore information	70

處長的話

Director's Message



本處在執行法定職責時,亦熱切保 護環境,以及支持香港的可持續發 展。

我們以這份報告書與你分享本處在 二零零七年所承諾的環保政策、措 施及計劃。

我衷心希望,這份報告書能夠爲你 提供一些實用的資料。我亦希望你 踴躍提出意見,使本處能夠以更環 保的方式執行職責,從而協助香港 的可持續發展。請將意見寄往本報 告第四十頁所示地址或電郵至 hkfsdeng@hkfsd.gov.hk。 In the discharge of statutory duties, our Department is committed to supporting environmental protection and the sustainable development of Hong Kong.

In this Report we share with you our environmental policy commitments, initiatives and endeavours in 2007.

I earnestly hope that this Report will give you some useful information. I also encourage you to give your feedback on how we can discharge our duties in a more environmentally friendly manner so as to make contributions to the sustainable development of Hong Kong. Please send your feedback to the address shown on page 40 of this Report or by e-mail to hkfsdenq@hkfsd.gov.hk.

盧 振 雄 消 防 處 處 長 (Gregory LO Chun-hung)

Director of Fire Services

Chapter 1 Introduction

消防處的法定職責,是保障香港 市民的生命及財產,免受火警及 其他災難損害,同時為市民提供 緊急救護服務,以及就防火措施 提供意見。截至二零零七年十二 月三十一日,消防處轄下共有 8,720 名軍裝人員及 594 名文職 人員,管理 78 間消防局、36 個 救護站、5個辦事處、4個消防車 輛維修工場、2 間訓練學校及於 二零零六年十一月啟用的西九龍 救援訓練中心。新落成的深圳灣 消防局亦於二零零七年七月一日 啟用。 為執行職責,部門管有 852 部消防車、救護車及支援車 輛,以及23 艘滅火及救援船隻。

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 measures for the 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 depots, 5 ambulance office-based workplaces, 4 fire appliance workshops, training schools, and the West Kowloon Rescue Training Centre 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,消防處處理了31,638 宗火警召喚、22,083 宗特別服務召喚,當中包括工業意外、氣體洩漏、山泥傾瀉及水浸;以及611,707 宗救護召喚。 對於有特別火警風險的樓宇及處所,本處發出了2,996 份消除火警危險通知書及11,951 份消防安全指示/改善消防安全指示。

消防處作為提供緊急服務的部門,不單局負救火及拯救工作, 亦致力透過下列活動,達至環境 保育效果:

- ◇ 減少事故對環境的破壞;
- ◆ 發展及採用可減少傷害環境 的救火策略、滅火煤體及工 具;
- ◆ 舉行大型防止山火宣傳活動,帶出「防止山火」的訊息,從而減少山火的宗數, 保護大自然的郊外;

◆ 處理涉及危險品或化學品事故,從而減低有害物料對環境的破壞;

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 the environmental to 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,提供專業意見及 實施規管政策,以期減少火 警及可能引致的污染,如空 氣及水源污染等。
- 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 我們的承諾及環保政策

Chapter 2 Our Commitment and Environmental Policy

我們的承諾

我們致力保護環境。雖然面對資源限制,但我們為社會提供服務時,仍會在不影響核心服務的效率及成本效益的情況下,不斷改善我們在環境保護方面的表現。 我們已制定紓緩計劃,減少在提供服務時可能會對環境造成的影響,計劃內容如下:

採取適當的滅火措施,例如:

- ☆ 在處理火警時使用不會破壞 環境的滅火媒體;
- ☆ 避免在滅火時過量用水。

為緊急車輛召喚程序制定愛護環 境的指引,例如:

☆ 減低警報裝置的聲浪,例如消 防車或救護車在緊急召喚出 動時使用警號所產生的聲響; 或減低消防局及救護站的廣 播系統及自動摺門所產生的 聲響。

節約能源及資源; 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:

- \(\times \) 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:

☆ 透過減少、再用及循環來減少 能源及資源的使用。

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

須符合有關法例的要求;例如:

Meeting the legal and regulatory obligations such as:

- ☆ 減少及監察在執行任務時或 由機械及裝備所產生的工業 廢料。
- implement appropriate measures to handle wastes generated by operational activities, machineries or equipment.
- ☆ 減少消防車輛、船隻及救護車 的氣體排放。
- ☆ reduce emission from fire appliances, vessels & ambulances.

環保政策

Environmental Policy

在執行行動或提供服務時,我們 會採取對環境負責的態度。為 此,我們致力: We would act responsibly to the environment in carrying out operations and delivering services. To this end, we would endeavor to:-

- ☆ 遵守與本處有關的環保法 規;
- comply with all the legal requirements for environmental protection;
- ☆ 盡量減少我們在執行職務和 工作時對環境所造成的影響,並且防止污染及節省資源,包括氣體排放、產生噪音、排放污水,以及處置廢物;
- 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;
- ☆ 監察及監管會對環境造成嚴 重影響的工作及行動,糾正以 往損害環境的做法;
- monitor and control the significant environmental impacts associated with our activities and operations,

correct past environmental abuses;

- ☆ 在本處的日常運作中採取物 盡其用及循環再用的原則;
- ☆ 提高本處員工的環保意識及 推行環保的能力,以及讓員 工、承辦商、供應商及市民了 解部門的環保政策及管理策 略;
- ☆ 支持公眾環保計劃及活動。

- 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 環境管理制度

Chapter 3 Environmental Management System

一九九五年,我們成立了環境審核委員會,由總部總區 消防總長擔任主席,而各有關總區的區長/救護監督, 以及行政科的行政主任則獲 委任為委員。委員會的職權 範圍如下:

- ☆ 糾正以往損害環境的做 法,並提高本處人員的環 保意識;
- ☆ 防止日後出現破壞環境的做 法,並鼓勵屬員減少浪費,以 及循環再用資源;
- ☆ 進一步促進能源效益和 節約能源工作;
- ☆ 在本處執行及管理環保 工作,並且定期進行環境 審核;以及
- ☆協調本處環境管理制度 的發展及推行。

同年,所有消防局及救護站 主管獲指派為所屬消防局及 救護站的單位環境審核員, 協助環境審核委員會發展及

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 Commands and the 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 推行部門的環境審核及管理制度。

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

第4章 環保工作表現

Chapter 4 Environmental Performances

節約能源

監管制度

每個總區的參事官須擔任節 約能源主任,負責監管所管 轄範圍的處所的能源消耗情 況。每個行動總區的單位環 境審核員,亦須每月向所屬 總區總部提交能源消耗情況 報告,以便監察。

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 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.

節約能源措施

為了節約能源及保護環境, 本處所有單位,包括消防 局、救護站、寫字樓及支援 單位的冷氣系統運作温度均 預設為攝氏 25.5 度。 部門 亦己經在各單位任命"節能 大使",提醒所有員工應經 常採取有效的環保節能措 施,例如在離開辦公室前關 掉所有不必要的電燈、電 腦、打印機、風扇、冷氣等。 電視、電腦,以及其他電子 文儀設備,即使關掉,如果 處於備用狀態,仍會消耗電 源,特別是過夜或者是長假 期毋須使用工作間的設備, "節能大使" 所以 會鼓 勵同事將毋須使用的電器電 源關掉。



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.

消防總部大廈節約能源

不少政府部門的辦公大樓每年用電量超過 500,000 千瓦小時,消防處總部大廈亦是其中之一。去年本處訂下目標,計劃在 07/08 年度減少總部大廈用電量 0.5%。

Officers The Energy Economy 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

升降機,從而「既可多做運動, 又可減少消耗能源」。

'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 mechanical the air-conditioning ventilation and system of the FSHQ Building was improved greatly. The 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.



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

電力消耗

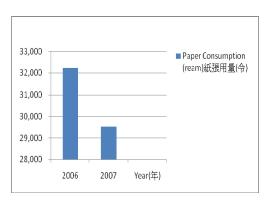
透過羣策羣力,我們已成功 保持整體的用電量不超過現 有水平的目標。在二零零七

Electricity Consumption

Through our concerted efforts in saving energy, we had achieved our overall target of not to exceed the / 零八年的用電量共32,361,643千瓦小時,較零六/零七年減少了152,019千瓦小時。雖然部門的活動和運作增加,例如深圳灣消防局加入運作,整體上用電量仍然能獲得節省。

節約用紙

紙張是珍貴資源,因此我們在使用紙張時,會盡量用及循環再用及循環再用及循環再用內電子內理工程,我們已推行支程式與一些工程,我們已推行技程。 一些工程,與一些工程, 一些工程, 一些工程, 一些工程, 一些工程, 一些工程。 一述工程。 一述工程, 一述



零六年至零七年減少紙張用量情况 Paper Consumption from 2006 to 2007

existing level of electricity consumption. Our total electricity consumption 2007/08 in 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. To keep in pace with the E-Government strategy, implemented some computer-aided system and IT Programme such as the Electronic Submission of Administrative Correspondence System and the Accessibility 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.

本處在減少用紙方面的一系列環保措施臚列如下:

- ☆ 我們鼓勵員工利用內部 電子通訊發布通告、電 子便箋報告最新的活。 子便箋或蒐集建議等 子便。或 ,我們將分享使用 。 外, 教在部門電子報告 板上, 以取代複製影印 本給使用者;
- ☆ 使用部門電子電話簿, 代替印刷本。
- ☆我們鼓勵善用部門網頁 向市民發放資訊。例如 牌照及審批總區在一項 「精明規管」計劃下, 自二零零六年起推行進 一步完善發牌程序的改 善措施,以便向有關行 業提供更快捷的審批服 務。部門把執行消防安 全政策與規例的資料、 管制危險品、消防裝置 承辦商註冊程序的資料 放在部門網頁『資料公 布』報告板上,使市民 可以隨時獲得電子複 本,從而令資訊更流 通,更能有效傳遞訊息。

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.

☆ 如必須列印文件,我們鼓勵 員工採用簡單步驟以盡量減 少用紙,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:

縮小篇幅可節省列印用紙, 改用小冊子模式列印、壓縮 多個畫面放在一頁列印、雙 面打印或影印。使用有雙面 打印功能的影印機。 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, 毋需逐次列印不同修定 文件。 using track changes for document amendments, to minimize printing of each amendment version; and

減少影印和避免印製過量複本;傳真機使用一面已打印的紙張。利用已使用紙張空白的背面作接收傳真、草擬及影印等用途;傳真文件時,避免使用傳真引頁;

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.

☆ 循環使用舊的文件夾或循環 使用信封。 Reusing loose minute jackets and envelopes;

☆ 定期傳閱有關節約用紙的電

☆ Promoting the message of

子通告,以提倡員工盡量減少用紙。我們鼓勵員工「想清楚才列印」的習慣,如非必要,請切勿列印備存。

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

消防處工程部及機電工程署 汽車維修部人員,定期檢查 及維修所有消防車及救護 車,確保車輛機件性能良 好,避免消耗過量燃料。 2007年起,我們開始蒐集自 關燃料消耗的資料,用以監 察本處車隊在燃料消耗的表 現。

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 inspected and serviced periodically by staff of the Fire Services Workshops and the Electrical & Mechanical Services Department Workshops respectively. 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.

減少噪音影響

當消防或救護車被緊急召喚 時,消防局/救護站內的緊 急廣播系統、自動摺門,以 及消防車/救護車的警號, 均會產生不同程度的噪音 為了減低噪音影響,消防 已推行以下消減噪音措施:

消防局及救護站的緊急廣播 系統

☆ 本處已向所有行動單位 發出指示,在夜間把緊急 廣播系統的音量調低,盡 量減少對附近居民的噪 音滋擾。

消防車及救護車警號的使用

Reduction of Noise Impact

Noise would inevitably be generated emergency broadcasting systems and automatic the folding-doors at fire stations / 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

車輛主管認為毋須使用 最大音量時,可予以調 低。 本處亦向所有行動 人員發出指示,說明如何 妥善使用警號。 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/救護站的自動摺門

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

☆本處在二零零七年只接 獲一宗市民提出有關自 動摺門發出噪音的投 訴。部門已安排維修,減 低有關自動摺門操作時 產生的噪音。

改善空氣質素

控制車輛的廢氣排放

由於我們經常使用車輛提供 緊急服務,因此須密切監控 消防車排放廢氣的水平。我 們已透過改裝現有車輛、妥 善維修車輛和制定適當採購 政策,盡量減低車輛廢氣所 造成的環境影響。

在車輛進行一般維修檢查 時,工程部的同事會進行車 輛氣體(燃釋氣體分析)測試 及柴油氣車排放(黑煙密度) 測試,以確保車輛排放符合 法例的要求。如果發現車輛 測試不合格,會即時進行復 修性車輛保養工程。 ☼ 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

汽車排氣設備

所有新的消防局及救護站均 已在車房安裝廢氣設備,例 如旺角救護站、葵涌救護站 及九龍塘消防局暨救護站。 有關設備可以把消防車及救 護車引擎排放抽走,從而改 善工作地點之空氣質素。

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

廢物管理

廢物分類及循環再用

把廢物回收的環保做法,人人有責,循環再用可以保護地球所要的專用可減少堆填區須接收的廢物。本處鼓勵全體人員參與廢物分類及循環再用計劃,並於二零零七年在工作間收集了 16,624公斤可循環再用的廢紙。

化學廢物

根據《廢物處置條例》(第 354 章)的《廢物處置(化學廢物)(一般)規例》,本處共有116 個單位登記為化學廢物產生者。本處亦已安排註冊化學廢物收集商,收集該等單位所產生的化學廢物。

在二零零七年,本處交由合 資格承辦商回收處理的化學 廢物,如廢機油、電池油、 廢引擎冷卻劑、鹼性廢汽 電池電解液,合共 47,100 公 升。此外,亦回收一些固體 化學廢物,包括 19 桶(每桶 200 公升)沾有機油的布碎和 10 桶(每桶 200 公升)沾有機 油的廢棄過濾芯。

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

醫療廢物

救護人員在提供救護及輔助 醫療服務時所收集及製造的 醫療廢物,會妥善放置在醫 院的醫療廢物箱。



家居廢物回收

本處為支持環保署在政府宿舍及屋邨舉辦的「家居廢物源頭分類計劃」,己在不會引致阻塞消防安全路線的情況下,在消防宿舍大廈電梯大堂、垃圾房或樓梯,設置廢物分類回收桶。

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



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 環保採購政策

Chapter 5 Green Procurement Policy

為持續改善環境,消防處已 在投標規格要求方面採用 環保措施。在這套採購政策 下,本處將會採購多輛符合 歐盟 IV 或以上的排放標準 的消防及救護車。

另一方面,本處在二零零七年參加使用環保汽車試驗計劃,有兩輛環保車完成試驗使用。日後在更換舊車時,部門會考慮購買這些較環保的車輛。

在採購時,我們會盡量考慮環保因素,例如能源效益及循環再用問題等。此外,本處會盡量考慮依照政府物流服務署的環保產品清單,採購消耗品。

在二零零七年至二零零八年,我們採用了約 1,705 個循環再造的打印機碳粉盒,又安排承辦商回收 1,007個已使用的打印機碳粉盒。我們在二零零七年訂定維修保養合約時,已經把這

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.

種環保做法推廣至回收傳 真機的碳粉盒。再者,我們 安排供應商在二零零八年 初回收900枚耗盡的手提無

線電通話機電池。 長壽的發光二極管(LED)燈

已逐漸引入安裝在新救護 車及消防車上,進一步減少 車上耗電及燈泡損耗量。 截至二零零七年年底,消防 處有 100 部車輛安裝了 LED

燈。

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

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.



救護車安裝了發光二極管燈 Ambulance installed with LED lamps

消防處逐漸以數碼相機取 代傳統菲林相機後,已成功 減少使用菲林、底片及相片 的數量。在二零零七年,本 處共使用了200卷菲林,相 對於二零零六年使用的 300 卷,减少了百分之五十。

With the increasing use of digital cameras to replace conventional film Department cameras, the 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 二零零七年主要環保措施

Chapter 6 Major Environmental Initiatives in 2007

「零山火計劃」

為保護大自然,部門於二零零七年推行全新的防止山火宣傳策略-「零山火計劃」,提高鄉效居民對山火隱患的警覺性。

過往的資料顯示,大部分的山林火都在清明節及重陽節期間發生。 有見及此,消防處舉辦「零山火計劃」的目的,是鼓勵全港的鄉村參與防止山火,務求羣策羣力,大幅減少山林火發生,為保護環境而各盡一分力。

"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

改善室內空氣質素

為響應政府提倡改善室內空 氣質素的政策,本處已研究不 同的可行方案。 經過審實 慮後,本處計劃在二零經 實素,如在市場尋找合適 質素,例如在市場尋找合適 工具或儀器,以減少室內 空 為 機械通風及空調系統等。

本處於二零零七年參加室內空氣質素檢定計劃。 該計劃屬於自願參與及自我監管性質。空氣質素指標分為兩個級別,即「卓越級」或「良好級」。計劃適用於設置有中央空調

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.

系統的大廈。 本處以下物業 在二零零七/零八年度獲得 「良好級室內空氣」的認證:

- 消防處總部大廈
- 尖東消防局
- 葵涌消防局
- 石硤尾消防局
- 荔景消防局
- 長沙灣救護站

素檢定認證書 Building

消防處總部大廈的室內空氣質 The IAQ Certification for FSHQ

and the Scheme was applicable building which had centralized 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



消防局/救護站的天台綠化 工程

為配合環保綠化政策,新落成 的消防局/救護站亦在設計 上加入可持續發展的綠色元 素,例如在新落成的九龍塘消 防局暨救護站的天台增建園 林設施。

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

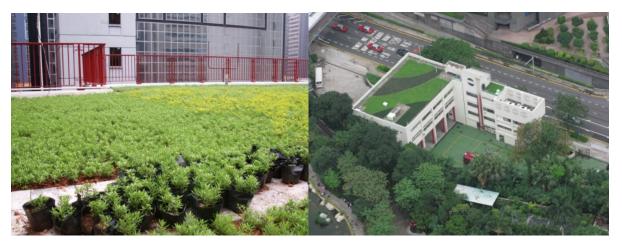
部門亦向建築處建議,可考慮 在十四個消防處處所作試點 推行天台綠化工程。 在二零 零七/零八年度,以下四個選 址的天台綠化工程已竣工:-

- (1) 港灣消防局
- (2) 中區消防局
- (3) 薄扶林救護站
- (4) 大埔救護站

緣化植物及土壤層於屋頂造成隔熱,某程度上可減少能源 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)

於二零零八/零九年度納入 綠化天台工程的消防處建築 物臚列如下:-

- 青衣消防局
- 元朗分區消防局(訓練大樓)
- 沙田救護站
- 粉嶺消防局

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 藍天行動及清新空氣約章

Chapter 7 Blue Sky Action and the Clean Air Charter

藍天行動

- ☆ 在等候時關掉車輛引擎;
- ☆ 鼓勵屬員以公共交通工 具取代私家車上下班,尤 其是在空氣質素欠佳的 日子;
- ☆ 避免在空氣質素欠佳的 日子使用以內燃機推動 的設備進行訓練及演習;
- ☆ 利用電風扇補充冷氣機 的冷凍效果;
- ☆ 重新編排客貨車的路線 及工作時間表,避免多餘

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;

☆ 盡量減少車輛或船隻的 測試時間或發動機慢車 的時間;及

☆車輛的輪胎要適當充氣。

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.

清新空氣約章

為執行約章的承諾宣言, 本處已於二零零七年成立能 源及排放管理小組, 成員 來自各總區的代表及工程組 的機電工程師。

能 源 及 排 放 管 理 小 組 二 零 零七年工作目標及成效

☆管理小組訂下工作方 案,以監察「非緊急車輛」 的每月耗燃油量(電油、 柴油),並按車種、引擎

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

容量分類計算平均每 100 公里的耗油量。收集各總 區的「非緊急車輛」,分 類資料。日後根據有關數 據,釐定同類型車輛的基 準,與其他部門同類型車 輛 比 較 燃 油 消 耗 量 表 現,作出分析報告。

☆ 在能源及排放小組的推動下,本處設立了網上報告車輛使用和燃油效益 監察系統。該系統有助車輛管理經理追蹤車輛的使用和燃油的效益;比較其他基準指標,可以令車輛使用更明智。

VI 12	它軍位標框	er LL act	3	t.	田典	17.	車公里分	4 /T	
4H	巴甲以标	TIGHX			選擇一般	用途	車類: MPV ▼		
							先表		
	制造	型點	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

☆ 小組就倉內含揮發性有機化合物成份的物品,列 出清單監控用量,例如塗 改液的稀釋劑已經不再 採用。 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 加強員工環保意識的訓練

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 protection management in the Department, Environmental Auditors or relevant supervisors or EEM Team members have been nominated to attend briefings experience and 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 目標及措施

Chapter 9 Targets and Initiatives

本處二零零七年的環保管理 工作進展良好,大部分目標 均已達到。為不斷改善保持 環保管理的工作,推廣環保 意識,本處已制定二零零八 年的工作目標,詳情如下: 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:

節約用電

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.

節約用紙

鑑於《消防安全(建築物)條例》(第572章)已於二零零七年七月一日實施,本處可能須向9,000名左右的舊式綜合用途樓宇業主或佔用人簽發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,要求他們改善建築物的消防安全水平。不過,儘管用紙量無可避免有所增加,部門仍然希望設法控制增幅,以維持部門服務所需。

我們盡量減少出版印刷刊物,改為採用製作光碟方式;又鼓勵同事多利用電子方式、傳遞信息和公布有用的資訊。

天台綠化工程

我們與負責保養的單位緊密 合作,為所挑選的消防局和 救護站推行天台綠化工程。 天台種植不但有美化環境的 價值,更能為建築物提供隔 熱效用。

改善室內空氣質素

為了維持良好的空氣質素, 部門一些辦公大樓會繼續參 與環境保護署的室內空氣質 素檢定計劃。根據在二零經 大年落成場地所得的認證經 驗,本處會考慮讓其他消 局/救護站參與室內空氣質 素檢定計劃。 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.

索取資料的途徑

Chapter 10 Sources of More Information

如果需要更多有關資料,請 致電 2733 7820 查詢,或致 函消防處,地址如下: For more information, please give us a call at 2733 7820 or write to us at:

香港 九龍 尖沙咀東部 康莊道1道 消防處總部大廈 消防處 Fire Services Department
Fire Services Headquarters Building
1 Hong Chong Road
Tsim Sha Tsui East
Kowloon
Hong Kong

你亦可瀏覽消防處網址:

You may also visit our Web Site at:

http://www.hkfsd.gov.hk

歡迎你提出寶貴意見。你可填寫 夾附的回應表格,然後郵寄至上 述地址,亦可電郵至下列地址: 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:

hkfsdeng@hkfsd.gov.hk

hkfsdeng@hkfsd.gov.hk

我們重視你的意見

你的寶貴意見有助我們改善環保管理制度

(請填妥以下問卷,並傳真至消防處總部管理組,傳真號碼: 2739 5879)

1.	這份報告書能否提供所有你想知道的 □ 是	香港消防事務環保資料? 口 否
2.	如果上題所選的答案為"否",你希 入什麼資料?	望我們在下一份環保報告書內加
3.	這份報告書的整體篇幅及內容如何? □ 太短 □ 太長 □ 其他:	□ 適中
4.	其他意見:	
5.	_ 11.24	環保組織成員 其他:
*	如果希望我們回覆,請提供以下資料	
姓名	名:	静絡方法:

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.		n relation to Fire Servic		nmental Protection information that you want to? No
2.	•	answer to question 1 is at Environmental Repor		tional information will you want us to include in
3.		the overall length and one short	Too long	oort? About Right
4.	Other c	comment:		
5 .		s your affiliation? Member of the Public Civil Servant vant us to respond to you,	□ □ □ please provide the	Environmental Protection Group Member Others: following information:
(Na	me).	1 , , , ,	(Contact):	