

The
Environmental
Report

環保
報告

2005

香港消防處
Hong Kong Fire Services Department





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處長的話

Director's Message

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 2005.

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 the last page of this Report or by e-mail to hkfsdenq@hkfsd.gov.hk.

(KWOK Jing-keung, Joe)
Director of Fire Services

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二零零五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為你提供一些實用的資料。我亦渴望你踴躍提出意見，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。請將意見寄往報告書尾頁所示地址或電郵至 hkfsdenq@hkfsd.gov.hk。

郭晶強
消防處處長



第1章 引言

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傷害，同時為市民提供緊急救護服務，以及就防火措施提供意見。截至二零零五年十二月三十一日，消防處轄下共有 76 間消防局、35 個救護站、5 個辦事處、2 間訓練學校、4 個消防車輛維修工場、848 部消防車、救護車及支援車輛，以及 13 艘滅火／救援船隻。至 2005 年底，本處共有 8,594 名軍裝人員及 590 名文職人員。

二零零五年，消防處處理了 37,741 宗火警召喚；20,813 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 584,882 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 3,219 份消除火警危險通知書及 6,751 份消防安全指示／改善消防安全指示。

The statutory duties of FSD are to protect life and property against fire and other calamity, provide emergency ambulance service and give advice on fire protection measures for the community. As at 31.12.2005, FSD operates 76 fire stations, 35 ambulance depots, 5 office-based workplaces, 2 training schools, 4 fire appliance workshops and a fleet of 848 fire appliances, ambulances and supporting vehicles plus 13 fire-fighting / rescue vessels. There are 8,594 uniformed members and 590 civilian staff in the Department.

In 2005, FSD responded to 37,741 fire calls, 20,813 special service calls on account of industrial accidents, gas leakages, landslides and floods, as well as 584,882 ambulance calls. A total of 3,219 Fire Hazard Abatement Notices and 6,751 Fire Safety Directions/Fire Safety Improvement Directions were issued to buildings and premises with special fire risks.

竹篙灣消防局

Penny's Bay Fire Station



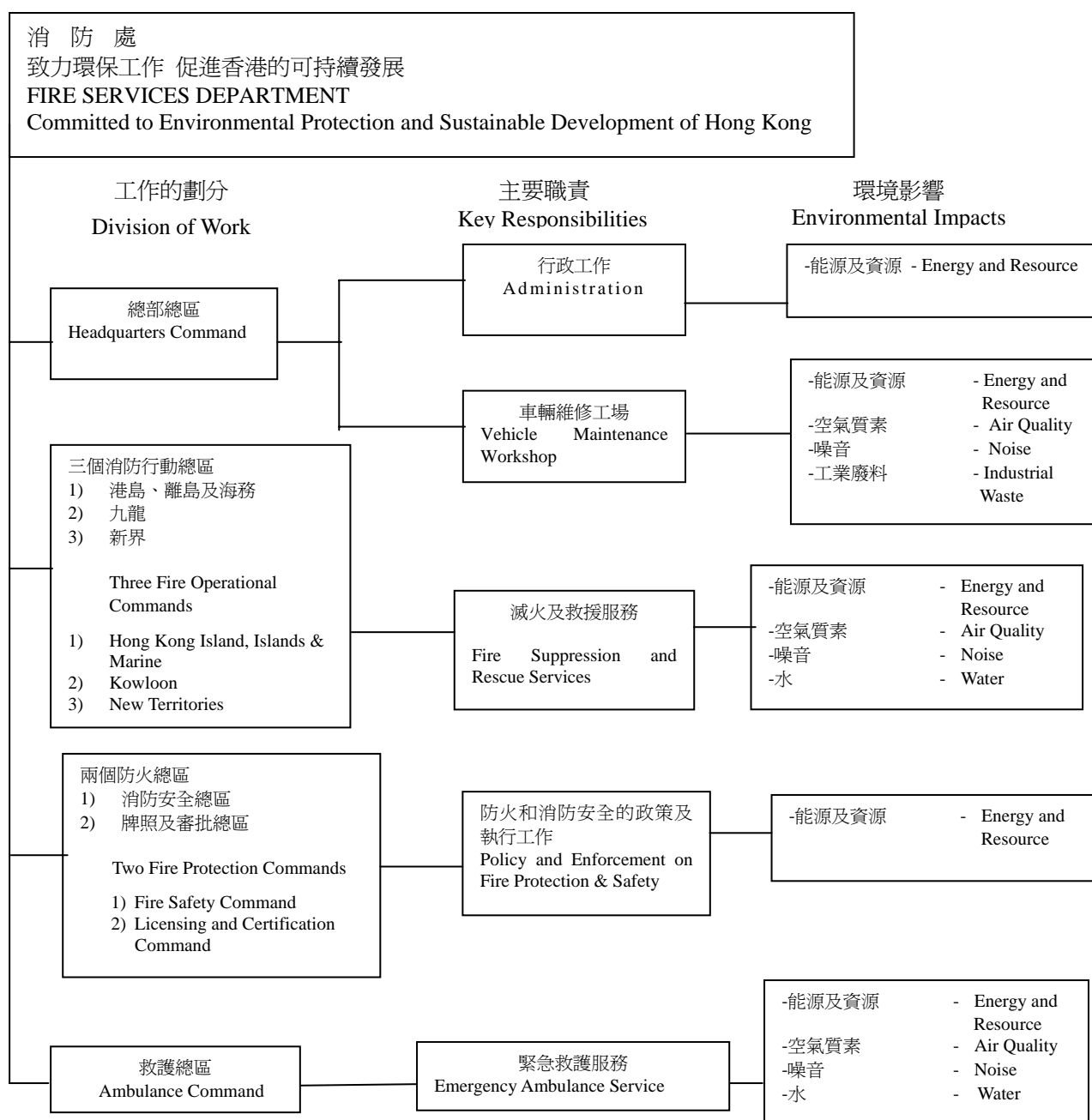


Impact on the Environment Arising from FSD's Activities

消防處的工作對環境 造成的影響

Being fully aware of the environmental impacts on the sustainable development of Hong Kong as a result of our discharge of duties, FSD has devised mitigating measures to alleviate the impacts. The flow chart below shows the corresponding environmental impacts arising from FSD's activities / operations.

消防處充分意識到在執行職務時對香港的可持續發展所造成的環境影響，因此制訂紓緩措施，減輕對環境造成的影響。以下的流程圖顯示本處在執行職責及工作時對環境造成的相關影響。





第 2 章 消防處致力促進香港的可持續發展

Chapter 2 Our Commitment to Sustainable Development of Hong Kong

消防處在從事日常工作時積極兼顧環保因素，並制定了環保目標及政策，而所定的目標及政策，亦已載於以往的報告書中。本處定期檢討這些環保目標及政策，以配合當前為香港的可持續發展而採取的措施和作出的承諾。

九龍灣工程部在二零零一年取得 ISO14001:1996 環境管理系統認證，並已在二零零五年成功提升至 ISO14001:2004。我們運用在認證過程中所得的經驗及知識，為環保目標及政策加入新措施，以改善環保工作。

環保目標

我們的目標是遵守香港所有環保法規，以及在消防處的日常運作中兼顧環保的因素，促進香港的可持續發展。

We are committed to incorporating environmental considerations in our daily activities and have, therefore, established our Environmental Goal and Policy as presented in our previous reports. The Environmental Goal and Policy are reviewed periodically to reflect the prevailing departmental initiatives and commitments in contributing to the sustainable development of Hong Kong.

Subsequent to our attainment of the ISO 14001:1996 Environmental Management System accreditation for our Kowloon Workshop in 2001, the accreditation has been successfully migrated to ISO14001:2004 in 2005. We have built on the experience and knowledge gained in the course of accreditation and incorporated new initiatives in our Environmental Goal and Policy for improving our environmental performance.

Environmental Goal

Our goal is to comply with the laws and regulations for environmental protection in Hong Kong and to incorporate environmental considerations into the daily operations of FSD so that continuous contributions are made to Hong Kong's sustainable development.





Environmental Policy

In delivering services to the community, FSD endeavors to :

- ☆ comply with all the legal requirements for environmental protection to which the Department subscribes ;
- ☆ minimize environmental impacts arising from FSD's operations and activities in regard to air and noise emission, effluent discharge and the generation and disposal of waste ;
- ☆ apply 'reduce, re-use and re-cycle' principles into our day-to-day operations ;
- ☆ promote staff's awareness of and competence in environmental protection ; and
- ☆ strive for continual improvement in our environmental management performance.

環保政策

為社會提供服務時，消防處致力：

- ☆ 遵守與本處有關的環保法規；
- ☆ 盡量減少本處在執行職務和工作時對環境所造成的影響，包括空氣與噪音污染、排放污水，以及產生及處置廢物；
- ☆ 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
- ☆ 不斷改善本處環境管理的表現。





第3章 環境管理

Chapter 3 Environmental Management

本處鑑於因執行職務而對環境可能造成影響，採取了一系列措施，盡量減低這些影響，並且節約資源，以及提高員工的環保意識。

In the light of the potential impacts on the environment arising from our duties, FSD has adopted a series of measures to minimize such impacts, conserve resources and promote staff awareness of environmental protection.

環境審核委員會及 單位環境審核員

Environmental Auditing Committee and Unit Environmental Auditor

一九九五年，消防處成立了環境審核委員會，由總部總區消防總長擔任主席，而各有關總區的參事官，則獲委任為委員。委員會的職權範圍如下：

In 1995, FSD set up an Environmental Auditing Committee, chaired by the Chief Fire Officer of the Headquarters Command with Staff Officers from respective Commands appointed as members. According to its terms of reference, the Committee is to :

- ☆ 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；

- ☆ correct past environmental abuses and enhance staff's environmental awareness ;
- ☆ prevent future abuses of 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 works and periodic environmental audits in the Department ; and
 - ☆ co-ordinate the development and implementation of the departmental environmental management systems.
- ☆ 進一步促進能源效益和節約能源；
 - ☆ 在本處執行及管理環保工作和定期的環境審核；以及
 - ☆ 協調本處環境管理制度的發展及推行。

In the same year, all fire station and ambulance depot commanders were appointed as Unit Environmental Auditors of the fire stations / ambulance depots to assist the Committee in the development and implementation of the departmental environmental auditing and management systems.

同年，所有消防局局長及救護站主管，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推行部門的環境審核及管理制度。





第 4 章 環境管理措施

Chapter 4 Environmental Management Initiatives

委員會因應部門不同類別人員的行動模式，制定了下列環境管理措施：

In regard to the mode of operation in different echelons of the Department, the Committee has devised the following environmental management initiatives:

能源消耗情況

Energy Consumption

消防及救護總區轄下的 76 間消防局及 35 間救護站，是行動人員為市民提供 24 小時服務的基地。

The 76 fire stations and 35 ambulance depots in the fire and ambulance Commands serve as bases for the operational staff to provide 24-hour service to the public.

由於部門在很多方面均需要消耗能源以執行日常工作，消防處已採取一系列措施，務求節約能源：

As energy is required in many areas of its daily work, FSD has adopted a series of initiatives to conserve energy:

A. 監管制度

A. Monitoring System

每個總區的參事官須擔任節約能源主任，負責監管所屬總區的能源消耗情況。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。

The Staff Officer of each Command serves as Energy Economy Officer to monitor the energy consumption in his Command. The Unit Environmental Auditor of each operational unit is also required to submit monthly energy consumption report to the Command Headquarters for monitoring purposes.





B. Replacement Programme

In implementing the building improvement and replacement programme, the Department has made every effort to replace the conventional electrical appliances by energy efficient appliances.

In 2005, 18 % of T8/T12 fluorescent tubes with conventional electromagnetic ballasts in FSD premises have been replaced by more energy efficient T5 fluorescent tubes with electronics ballasts. On the other hand, T5 fluorescent tubes are used in all newly-built FSD premises.

C. New Technology

New concepts and technologies are being explored to further reduce the use of conventional energy.

It is pleasing to note that the solar water heating system installed at Braemar Hill Fire Station and Penny's Bay Fire Station as supplementary energy sources for water heating last year has been operating very satisfactorily since commission. As we have attained remarkable result at the above-mentioned projects, similar system was planned to be installed at Kowloon Tong Fire Station which is under construction and is expected to be put into commission by the end of 2006. It is hoped that our relevant experience will help pave the way for the adoption of more environmental-friendly energy consumption concepts in our new premises.

B. 更換計劃

部門在推行樓宇改善及更換計劃時，均盡量以可省能源的電器取代舊式電器。

在二零零五年，消防處所用的舊式電磁變壓 T8 或 T12 光管，其中 18% 已換上更有能源效益的電子變壓 T5 光管。此外，新建的消防處所已全部採用 T5 光管。

C. 新科技

部門現正不斷研究新概念及新科技，務求進一步減少使用傳統能源。

本處於二零零四年啓用的寶馬山消防局及竹篙灣消防局，均利用太陽能作為把水加熱的輔助能源，而操作效果亦非常理想。基於上述計劃取得顯著成果，部門亦計劃將同類系統安裝於正在建造中的九龍塘消防局，該局預計在 2006 年底啓用。希望有關經驗有助部門開拓新路向，日後在新建的處所採取更有利環保的能源運用概念。





D. 推行節約能源

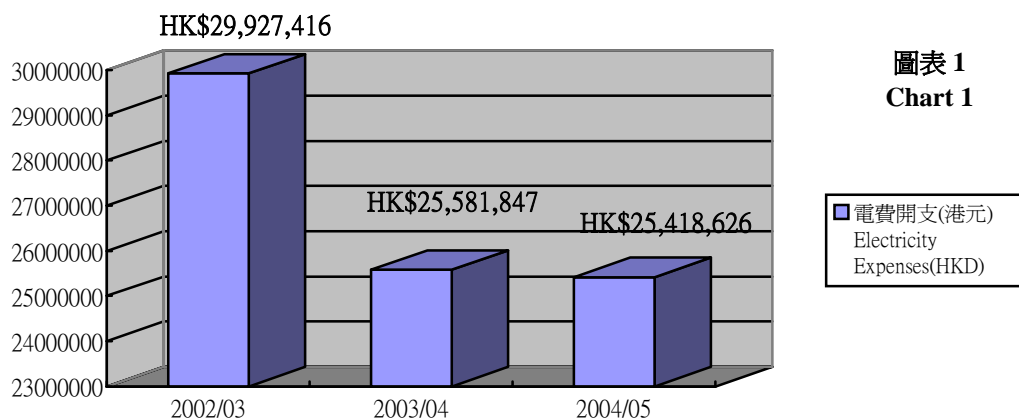
承接着本處於二零零四年在機電工程署舉辦的「香港能源效益及節能獎（政府機構）比賽中獲得部門組別的「星級節能金獎」及囊括「非辦公大樓節能金、銀、及銅獎」，屬員的環保意識得以大大提昇。比對於二零零三至零四年度之二千伍佰伍拾捌萬元電費開支，消防處雖然在二零零四至零五年度新啓用了寶馬山消防局及竹篙灣消防局，但期間的電費開支僅為二千伍佰四拾二萬元。

圖表 1 顯示零二/零三至零四/零五年部門總電費開支。為使這項比較結果更準確，期間設於聯用樓宇而沒有獨立電錶的消防處處所，並沒有納入比較範圍內。

D. Promote Energy Consumption

After having been awarded the 'Star Saver Gold Award', **Gold, Silver and Bronze Awards** for 'Venue Saver Award (for Non-office Building) in the 'Hong Kong Awards for Energy Efficiency and Conservation in Government' organized by Electrical and Mechanical Services Department in 2004, members' awareness of environmental protection has been greatly enhanced. As a result, the Departmental Electricity Expenses in Financial Year 2004-05 was reduced to \$25.42M as compared with that of \$25.58M in FY 2003-04 despite the fact that the Braemar Hill Fire Station and the Penny's Bay Fire Station had been put into commission within the same period.

The total Departmental Electricity Expenses for FY 2002/03 to 2004/05 are shown in Chart 1. For meaningful comparison, the FSD premises situated in joint-user buildings without separate electricity meters of our own have been excluded in the comparison.



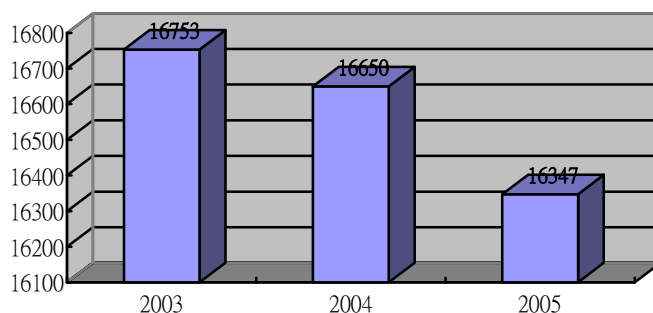


Use of Resources

A. Paper

Day-to-day administration and communication among more than 100 workplaces in the Department consume a lot of paper. Through paper-saving initiatives and the concerted efforts of all members, there has been a substantial reduction in the overall paper and envelope consumption (Chart 2).

Information Technology Management Unit (ITMU) was set up in this Department in 2004. Since its establishment, the control on IT operation and correspondence delivery services has been effectively monitored. Moreover, the Phase 1 Electronic Submission of Administrative Correspondence System “ESAC” in the Department was put in commission in 2005. Statistical records on ‘Visit to Stations’, ‘Environmental Protection’ and ‘Fire Protection’ have been processed under the ‘ESAC’ system. An obvious enhancement on working efficiency was noted. Meanwhile, Phase 2 of ‘ESAC’ system will be introduced in 2006 with 5 administrative records to be included. The ‘ESAC’ system is an integrated content management system aimed at digitizing paper based document within this Department in order to minimize the use of paper for inter-office correspondence. A total of 16,347 reams of paper had been used in 2005 which was reduced by 1.8% when compared with the consumption in 2004.



圖表 2
Chart 2

■ 紙張(令) Paper (Reams)

資源運用

A. 紙張

部門在全港有超過 100 個工作單位，在日常的行政及通訊工作中，需要使用大量紙張。通過實施節約用紙措施，以及在全體人員通力合作下，紙張及信封的總耗量大幅下降(見圖表 2)。

消防處資訊科技管理組已於在二零零四年成立。在過去一年的運作中，資訊科技作業及資訊發放服務得到有效地監管。此外，電子文書系統第一階段亦已於二零零五年投入運作，其中將「探訪消防局及救護站」、「環境保護」及「防火巡查」的記錄，使用電子文書系統處理，並且顯著地提高工作成效。電子文書系統第二階段將於二零零六年實施，屆時會加入五項文書記錄進行電子處理。這電子文書系統是一個綜合信息管理系統，目的將本處的紙張文件數碼化，從而減少內部通訊用紙。二零零五年本處共用了 16,347 令紙張，對比二零零四年減少 1.8%。



B. 燃料

消防處工程部和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。

B. Fuel

To ensure that our fleet of 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 at the Fire Services workshops and the Electrical and Mechanical Services Department workshops respectively.

尖沙咀廣東道九龍工程部

Kowloon Workshop at Tsim Sha Tsui Complex, Canton Road





Noise Impacts

噪音影響

In regard to the provision of emergency services, the premises and vehicles in the fire and ambulance Commands are geared to enable the operational staff to respond to emergencies expeditiously. The emergency broadcasting system at fire stations/ambulance depots, the sirens on the fire appliances/ambulances and the automatic folding-doors of fire stations/ambulance depots all generate different levels of noise. To alleviate the noise impacts, FSD has implemented a number of mitigation measures as follows :-

消防處作為主要提供緊急服務的部門，各個消防及救護總區的處所及車輛的設計，都是為了方便行動人員迅速到達緊急事故現場。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，均會製造出不同程度的噪音。為了減低噪音影響，消防處已推行以下幾項消滅噪音措施：

A. Emergency Broadcasting System in Fire Stations and Ambulance Depots

A. 消防局及救護站的緊急廣播系統

Written instructions have been issued to all operational units to tune down the volume of the emergency broadcasting system during night time to minimize noise nuisance to the nearby residents. The figures of public complaints against noise nuisance generated by the emergency broadcasting system for the past three years are tabulated below.

本處已向所有行動單位發出書面指示，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。現將市民過去三年投訴緊急廣播系統造成噪音滋擾的統計數字列於下圖表。

年度 Year	2003	2004	2005
火警召喚 Fire Call	0	0	1
救護服務召喚 Ambulance Call	2	2	1





B. 消防車及救護車警號的使用

警號可幫助本處人員快速抵達緊急事故現場，而警號所發出的聲響，更可以消除等待救援及協助的人士的疑慮。不過，警號所產生的噪音，難免對公眾造成滋擾。爲了在這兩方面取得平衡，本處在一九九九年爲所有消防車及救護車換上可以調校音量的警號系統。當車輛主管認爲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書面指示，說明如何妥善使用警號。

本處雖然已採取紓減措施，但由於緊急出動率高，因此，本處仍接到有關警號的投訴個案，有關數字載於下圖表：

B. Use of Siren by Fire Appliances and Ambulances

The use of siren by fire appliances or ambulances on their way to the scene of emergency is to expedite their arrival. The sound of siren also gives reassurance to persons awaiting assistance or rescue. However, it will inadvertently cause nuisance to the public. With a view to striking a balance, the Department replaced the siren system on all fire appliances and ambulances by volume-adjustable one in 1999 to enable the officer-in-charge to tune down the sound level when full volume is not required. Written instructions regarding the proper use of siren were also issued to all operational staff.

Despite the mitigating measures adopted by the Department, there are some complaints about the use of siren as tabulated below because of the high emergency turn-out rate:

年度 Year	2003	2004	2005
火警召喚 Fire Call	1	4	0
救護服務召喚 Ambulance Call	1	1	3





C. Automatic Folding Doors of Fire Stations / Ambulance Depots

It is known from experience that the noise generated from the operation of folding doors might cause nuisance to the nearby residents. By the end of 2005, a total of 42 fire stations and ambulance depots, which are topographically close to residential area, had been installed with variable speed drive on their their automatic folding doors. Moreover, Planning Group of this Department has also included such device in all newly built fire stations and ambulance depots. FSD has not received any public complaint against the noise caused by the automatic folding doors since the implementation of the improvement programme.

C. 消防局／救護站的自動摺門

從經驗得知，消防局／救護站自動摺門操作時所發出的聲響可能對附近居民造成噪音滋擾。到二零零五年底，本處已於 42 間毗連民居的消防局及救護站，安裝設有變速驅動裝置的自動摺門控掣。此外，本處策劃組亦將有關係統包括在所有新近興建的消防局及救護站。自實施這項改善計劃後，本處再沒有接獲有關自動摺門發出噪音的投訴。





D. 救護車在倒車時發出的聲響

本處曾接獲伊利沙伯醫院附近居民投訴，指在深夜時份救護車在醫院急症室外倒車時產生聲響。為解決有關問題，本處已安排為每一輛救護車安裝「智能倒車示警裝置」，以取代現有倒車示警裝置。該新裝置可以因應環境噪音聲浪，自動調節倒車示警的音量。本處預計將於二零零六年九月完成所有救護車改裝「智能倒車示警裝置」的工作，並希望屆時問題會得到全面解決。

E. 調查有關噪音滋擾的投訴

部門以認真態度處理噪音投訴。雖然在處理緊急事故時，使用緊急廣播系統及警號，既合理又合法，但我們希望在提供服務時，把噪音影響減至最低。總部總區消防總長負責親自處理這些投訴，確保處方就每宗投訴進行公正的調查，確定是否仍有改善空間。

D. Noise Generated from Ambulances Whilst Reversing

In response to the complaints from residents who live near the Queen Elizabeth Hospital regarding the signal generated from the warning device of ambulances whilst reversing outside the Accident & Emergency Department at midnight, the Department sought to resolve the problem through installing an “Intelligent Reverse Warning Device” on each ambulance to replace the existing one. The new device could automatically adjust its volume in line with the ambient noise level. It is anticipated that installation of such device on all ambulances will be completed in September 2006 and we hope that the problem could be resolved by that time.

E. Investigation into Complaints on Noise Nuisance

The Department takes a serious attitude in handling complaints against noise nuisance. Although it is justifiable and legitimate for our members to operate the emergency broadcasting system and siren when responding to emergency, it is our aim to deliver services with the least noise impact on the environment. The Chief Fire Officer of the Headquarters Command will personally handle such complaints and ensure that investigation is conducted fairly into every complaint to ascertain if there is scope for improvement.





Air Quality Impact

A. Vehicle Emission Control

One of the main culprits of air pollution in Hong Kong is the pollutant from vehicle emissions. As our emergency service involves frequent use of vehicles, we seek to minimize its impact on environment through modification of our existing appliances, proper vehicle servicing and procurement policy.

By the end of 2005, more than 95% of our diesel-driven fire appliances are in compliance with Euro-II or Euro-III emission standard, or retrofitted with diesel-oxidation catalytic converters to reduce the emission of pollutants. For uplifting the emission standard, FSD will require newly procured diesel-driven fire appliances and ambulances to comply with Euro-IV emission standard.

To closely monitor the emission level of fire appliances, the Fire Services workshop staff will check the emission level of the Fire Services vehicles during routine maintenance.

對空氣質素的影響

A. 控制車輛的廢氣排放

香港空氣污染的其中一項主因，是車輛排放的廢氣。由於我們經常使用車輛提供緊急服務，因此會透過改裝現有車輛、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。

在二零零五年底，超過 95% 的柴油消防車，已符合歐盟 II 或歐盟 III 廢氣排放標準，或已安裝柴油催化轉換器，以減少污染物的排放。為進一步改善廢氣排放，本處將會要求新購置的柴油消防及救護車輛要符合歐盟 IV 的廢氣排放標準。

為了密切監控消防車排放廢氣的水平，本處工程組人員為本處車輛例行維修時，必定檢查廢氣排放水平。





B. 氣體回收系統

為符合已於二零零五年實施的《空氣污染管制(油站)(汽體回收)修訂規例》，本處已聯同機電工程署編訂時間表，為本處所有的汽油加油站安裝第 II 期汽體回收系統。整個計劃預期在兩年內完成。截至二零零五年底，寶馬山消防局、竹篙灣消防局及馬鞍山救護站的汽油加油站已經安裝第 II 期汽體回收系統，經環境保護署驗證後該系統已投入服務。此外，於旺角消防局及大埔救護站的第 II 期汽體回收系統安裝的籌備工作經已到達最後階段。安裝工程將於二零零六年初展開，並預期可於同年年底完成。

C. 改善室內空氣質素

我們非常注重改善室內空氣質素。室內空氣質素良好，不但使室內工作人員的健康有所保障，亦可減少使用空氣清新噴霧，更無需為改善空氣質素而加強房內氣流，以致消耗更多能源。

B. Vapour Recovery System

In order to comply with the requirements of Pollution Control (Petrol Filling Stations) (Vapour Recover) Amendment (Regulation), which was enacted in 2005, FSD has worked out a schedule for installing Phase II Vapour Recovery Systems in all petrol filling stations of FSD in conjunction with Electrical and Mechanical Services Department. It is anticipated that all petrol filling stations will be installed with such system within the next two years. By the end of 2005, Phase II Vapour Recovery Systems have been installed for the petrol filling stations at Braemar Hill Fire Station, Penny's Bay Fire Station and Ma On Shan Ambulance Depot and put into commission upon accreditation by Environmental Protection Department. On the other hand, preparatory work for installation of Phase II Vapour Recovery System for Mong Kok Fire Station and Tai Po Ambulance Depot have reached the final stage. Installation works will commence in early 2006 and be completed by the end of the same year.

C. Indoor Air Quality Improvement

We pay special attention to improving the quality of indoor air. Good indoor air quality not only safeguards the health of occupants inside premises but also reduces the use of air-refresher spray and the need to strengthen the air-flow inside an enclosed area which in turn leads to additional energy consumption.





Waste Management

廢物管理

A. Waste Separation and Recycling

A. 廢物分類及循環再用

All members are encouraged to take part in the waste separation and recycling programme. In 2005, a total of 16,335 kg of recyclable paper were collected for recycling.

本處已鼓勵全體人員參與廢物分類及循環再用計劃。二零零五年，共收集了 16,335 公斤可循環再用的廢紙。

Collecting Bins for recycling in a Fire Station

消防局的廢物回收箱





B. 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 111 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。二零零五年，收集商共收集了 1,143 公斤固體化學廢物和 16,445 公升液體化學廢物，作為循環再用，或予以棄置。

為減少對環境污染，本處已採購環保的滅火泡劑，逐步代替現存舊有的泡劑。在二零零五年，本處採購 7,000 公升環保的滅火泡劑，將來亦會跟從這方針購買泡劑。

C. 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，妥善放置在醫院的醫療廢物箱。

B. Chemical Waste

A total of 111 units in FSD have been registered as Chemical Waste Producers under the Waste Disposal (Chemical Waste) (General) Regulation of the Waste Disposal Ordinance (Chapter 354). Arrangement has also been made for registered chemical waste collecting contractors to collect the chemical waste produced in those units. In 2005, a total of 1,143 kg of solid chemical waste and 16,445 litres of liquid chemical waste were collected by the contractors for recycling or disposal.

In order to reduce the environmental impact, this Department has adopted the procurement of environmentally friendly foam concentrate to replace the existing stocks gradually. In 2005, a total of 7,000 litres of environmentally friendly foam has been procured and it is the Department's long term procurement policy on foam concentrate.

C. Medical Waste

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



Staff Awareness

員工的環保意識

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 compiled a Departmental Manual on Environmental Management to remind and assist members in this regard.

屬員自願參與實行環保措施，是部門成功建立環保文化的關鍵。為鼓勵屬員參與建立環保文化，環境審核委員會編製了一本《香港消防處環境管理手冊》，在這方面提醒並協助屬員。

To preserve energy and protect our environment, operating temperature of air conditioning systems of all units including fire stations, ambulance depots, offices and other supporting units are pre-fixed at 25.5 degree °C. Moreover, all members are instructed to turn off any unnecessary electrical appliances, i.e. lights, air conditioners, computers, etc., before leaving their offices. In Fire Services Headquarters Building, half of the elevators in the building are switched off during non-busy hours. All service drivers are also instructed to turn off the engine whilst the vehicle is idling.

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、所有寫字樓及支援單位的冷氣系統的運作溫度均預設為攝氏 25.5 度。此外，部門亦指令所有員工在下班時必須關掉所有不必要的電力裝置，如電燈、冷氣及電腦等。在消防總部大廈，於非繁忙時段亦只開放一半的升降機提供服務。本處亦指示所有消防車司機，在停車等候時須關掉引擎。

冷氣系統的運作溫度預設為攝氏 25.5 度。

Air-conditioning of all units are pre-fixed at 25.5 °C.





員工訓練

《香港消防處環境管理手冊》在二零零三年推出後，環境管理基本訓練已定期在各單位作為常規訓練的其中一部分進行。

二零零五年，九龍灣工程部有 42 名人員接受了 ISO 14001 環境管理系統的複修訓練，為單位在取得認可資格後須每半年接受一次的審核作好準備。

環保活動

部門在二零零五年舉辦了防止山火遠足日，藉此增強公眾及屬員的環保意識及使命感。

二零零五年防止山火遠足日



Staff Training

Following the issue of the Departmental Manual on Environmental Management in 2003, basic training in green management is conducted at unit level regularly as part of the routine training of our staff.

In 2005, a total of 42 members of the Kowloon Bay Workshop received refresher training on ISO 14001 environmental management system to prepare for the half-yearly auditing after accreditation of the unit.

Environmental Activities

In 2005, a Hillfire Prevention Walk was organized to promote the public and members' awareness of and commitment to environmental protection.

"Hillfire Prevention Walk 2005"





五常法

五常法是近代在日本企業所採用的一種優質管理方法，目的是提高工作質素及效率。而這管理方法短短數年間在香港已超過七十多間公司採納使用。

五常法是現代的管理模式，通過「常組織」、「常整頓」、「常清潔」、「常規範」及「常自律」的五大範疇，提高生產效率、工作質素及企業形象，從而減少不必要的資源浪費，對於保護環境有很積極的作用。本處在二零零四年開始對五常法進行可行性探討，並於二零零五年選擇了上環消防局、何文田救護站及消防總部之總務部進行試點，結果成效非常滿意，並獲得香港五常法協會驗證成功。本處總結試行五常法管理模式經驗後，計劃在來年將這管理模式推廣至四十四間消防局、救護站及辦公室。

何文田救護站採用五常法管理後，所有辦公室及儲存倉都井井有條。



“5-S Management”

Aiming at improving the quality of work and efficiency, “5-S” Management is widely practised by companies in Japan. In Hong Kong, more than 70 have adopted this management concept in recent years.

“5-S” Management is a neo-conceptual approach with concentration on 5 main management areas which are “Structure”, “Systematic”, “Sanitize”, “Standardize”, and “Self-discipline”. The objective is to enhance our productivity, service quality and image. This Department studied the feasibility of introducing such management techniques in 2004. As a pilot scheme, 3 units, namely Sheung Wan Fire Station, Ho Man Tin Ambulance Depot and the General Registry of the Fire Services Headquarters were selected to implement the “5-S” Management. The result was encouraging with all passing the Certification Audit by the HK 5-S Association. In the light of the experience gained, the Department planned to further implement the “5-S” Management at 44 fire stations/ ambulance depots/ office-based workplaces in the coming year.

After the implementation of “5-S” Management in Ho Man Tin Ambulance Depot, the office and stores are kept in neat and tidy manner.



第 6 章 環保採購政策

Chapter 6 Green Procurement Policy

FSD lays down stringent contractual terms to ensure that procurement items meet the latest legal environmental requirements of Hong Kong. Under such procurement policy, by the end of 2005, a total of 257 fire appliances and ambulances in compliance with Euro-III emission standard were in service. 11 new appliances with Euro-III standard will be put in commission in 2006. For further uplifting the emission quality, Euro-IV fire appliances and ambulances are being procured, 3 fire appliances and 9 ambulances will be delivered to the Department in 2007.

Moreover, Chief Supplies Officer of this Department would ensure that consumable items are procured from the Green Products List of the Government Logistics Department.

Long-life LED warning lights are introduced in new ambulances and fire appliances for reducing electricity consumption and bulbs replacement.

Two Major Pumps equipped with Compressed Air Foam System will be delivered in 2006 to further enhance fire fighting efficiency and reduce water consumption in fire fighting.

符合歐盟 III 廢氣排放標準的新消防車輛

Fire appliances in compliance with Euro-III emission standard

消防處制訂嚴格的合約條款，確保所採購的車輛及物品，符合本港現行的環保法規。在這套採購政策下，到二零零五年底，本處共有 257 輛符合歐盟 III 廢氣排放標準的消防及救護車服役。此外，將有 11 輛符合歐盟 III 廢氣排放標準的新消防車輛將於二零零六年投入服務。為進一步改善廢氣排放，本處已經著手採購符合歐盟 IV 排放標準的消防及救護車輛，在二零零七年將有三輛新款消防車及九部救護車運抵部門。

此外，本處總物料供應主任會確保部門依照政府物流服務署的環保產品清單，採購消耗品。

長壽 LED 警報燈已逐漸引入安裝在新救護車及消防車上，以進一步減少車上耗電及燈泡更換。

兩輛配備壓縮氣體泡沫系統的泵車，將在二零零六年投入服務，以增強滅火效率及減少滅火時的所需要水量。





第 7 章 環保工作目標摘要

Chapter 7 Environmental Targets Summary

部門已訂立明確目的及目標，以改善及監察環保工作的表現。在全體人員同心協力下，過去三年，在達到目標方面，已取得令人滿意的進展。

The Department has set clear objectives and targets to improve and monitor the environmental performance. With the concerted effort of all members, the Department has made satisfactory progress in meeting the targets over the past three years.

目標 Targets	二零零三年 2003	二零零四年 2004	二零零五年 2005
符合有關法規 Legal Compliance			
符合《空氣污染管制條例》的規定。 To comply with Air Pollution Control Ordinance.	100%達到目標 100 % achieved.	100%達到目標 100 % achieved.	100%達到目標 100 % achieved.
符合《水污染管制條例》的規定。 To comply with Water Pollution Control Ordinance.	100%達到目標 100 % achieved.	100%達到目標 100 % achieved.	100%達到目標 100 % achieved.
環境管理 Environmental Management			
發展一套符合 ISO 14001 認證規定的環境管理系統，並分階段取得認證。 To develop an Environmental Management System compatible with ISO 14001 and attain certification by phase.	環境管理委員會根據九龍灣工程部於二零零一年取得 ISO 14001 認證的經驗，檢討並加強部門的環境管理。其中一項措施是編製《環境管理手冊》，協助屬員實行環保措施，以配合部門的環保目標及政策。 Based on the experience gained from the accreditation of ISO 14001 at Kowloon Bay Workshop in 2001, the Environmental Management Committee reviewed and strengthened our environmental management in the Department. One of the initiatives was the compilation of the Environmental Management Manual to assist members to meet our environmental goal and policy.	自《香港消防處環境管理手冊》在二零零三年推出後，環境管理基本訓練已定期在各單位作為常規訓練的一部分進行。 Upon the issue of the Departmental Environmental Manual in 2003, basic training in green management has been conducted at unit level regularly as part of the routine training of our staff.	九龍灣工程部在二零零一年取得 ISO14001:1996 環境管理系統認證，並已在二零零五年成功提升至 ISO 14001 :2004。環境管理基本訓練已定期在各單位作為常規訓練的一部分進行。 Subsequent to our attainment of the ISO 14001:1996 Environmental Management System accreditation in our Kowloon Bay Workshop in 2001, the accreditation has been successfully migrated to ISO14001:2004 in 2005. Basic training in green management has been conducted at unit level regularly as part of the routine training of our staff.





防止污染 Pollution Prevention

<p>為所有在末實施歐盟 II 標準之前已購置的消防車，安裝柴油催化轉換器。 To install diesel catalytic converters on all pre-Euro II standard fire appliances.</p>	<p>100%達到目標 100 % completed.</p>	<p>100%達到目標 100 % completed.</p>	<p>100%達到目標 100 % completed.</p>
<p>為那些對附近居民造成滋擾的消防局／救護站自動摺門，加設減音裝置。 To install a noise reducing device on the automatic folding doors of fire stations / ambulance depots to reduce noise nuisance to the nearby residents.</p>	<p>除了在所有消防局／救護站裝設吸音墊外，亦已在旭龢消防局、春坎角消防局及摩星嶺救護站的自動摺門裝設「保頓」減聲器。 Apart from installation of rubber cushions at all fire stations / ambulance depots, “Bolton’ noise reducers were installed on the folding doors of Kotewall Fire Station, Chung Hom Kok Fire Station and Mount Davis Ambulance Depot.</p>	<p>與機電工程署制定計劃，在 42 間消防局及救護站，加裝自動摺門變速驅動器。二零零四年底已有 22 間消防局及救護站安裝有關裝置。 A proposal was worked out with EMSD to install a variable speed drive on the automatic folding doors of 42 fire stations and ambulance depots. By the end of 2004, this device has been installed in 22 fire stations and ambulance depots.</p>	<p>到二零零五年底，本處與機電工程署合作，已於 42 間毗連民居的消防局及救護站，安裝設有變速驅動裝置的自動摺門控制。自實施這項改善計劃後，本處再沒有接獲有關自動摺門發出噪音的投訴。 By the end of 2005, automatic folding doors of 42 fire stations and ambulance depots, which are topographically close to residential area, had been installed with variable speed drive. FSD has not received any more public complaint against the noise caused by the automatic folding doors since the implementation of the improvement programme.</p>





<p>在所有消防局、救護站及辦事處之間建立資訊及網絡基建，利用電郵作為內部通信，以減省紙張的傳送。</p> <p>To establish an IT and network infrastructure for all fire stations, ambulance depots and office based workplace. Utilization of E-mail in internal correspondence to reduce the use of paper.</p>	<p>所有消防局、救護站及辦事處已接駁網絡基建，並以電子郵件作為主要溝通渠道之一。</p> <p>All fire stations, ambulance depots and office based workplace were connected to the network infrastructure. E-mail has been used as one of the major communication channels.</p>	<p>資訊科技管理組於二零零四年成立。資訊科技管理組監管電子文書系統的建立，目的是推行綜合信息管理，以處理部門內的所有數碼信息／紙張文件。新系統將以電子格式集中儲存所有文件，從而減少內部通訊用紙。</p> <p>Under the supervision of ITMU, established in 2004, an Electronic Submission of Administration Correspondence System (ESAC) was under construction. The system is to implement integrated content management to handle all digital content/paper based document within this Department. All documents will be stored centrally in electronic format to minimize the use of paper for internal correspondence.</p>	<p>電子文書系統第一階段亦已於二零零五年投入運作，其中將「探訪消防局及救護站」、「環境保護」及「防火巡查」的記錄，使用電子文書系統處理，並且顯著地提高工作成效。電子文書系統第二階段將於二零零六年實施，屆時會加入五項文書記錄進行電子處理。這電子文書系統是一個綜合信息管理系統，可以將本處的紙張文件數碼化，從而減少內部通訊用紙。</p> <p>The Phase 1 Electronic Submission of Administrative Correspondence System “ESAC” in the Department was put in commission in 2005. Statistical records on ‘Visit to Stations’, ‘Environmental Protection’ and ‘Fire Protection’ have been processed under the ‘ESAC’ system. An obvious enhancement on working efficiency had been noted. Meanwhile, Phase 2 of ‘ESAC’ system will be introduced in 2006 with 5 administrative records to be included. The ‘ESAC’ system is an integrated content management system capable of digitizing paper based document within this Department in order to minimize the use of paper for inter-office correspondence.</p>
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採購政策 Procurement Policy			
<p>採購符合最新歐盟廢氣排放標準的新款車輛。 To procure new vehicles which meet the latest Euro emission standard.</p>	<p>100%達到目標 100 % achieved.</p>	<p>100%達到目標 100 % achieved.</p> <p>共有 55 輛符合歐盟 III 廢氣排放標準的消防車服役。此外，將有 7 輛於二零零五年投入服務，以及 12 輛符合同一廢氣排放標準的新款消防車於二零零六年運抵部門。 A total of 55 new fire appliances meeting Euro III emission standard are in service. 7 new appliances will be put in commission in 2005 and another 12 meeting the same emission standard will be delivered to the Department in 2006.</p>	<p>100%達到目標 100 % achieved.</p> <p>共有 257 輛符合歐盟 III 廢氣排放標準的消防及救護車服役。此外，將有 11 輛符合同一廢氣排放標準的新款消防車於二零零六年投入服務。為進一步改善廢氣排放，本處已經著手採購符合歐盟 IV 廢氣排放標準的三輛消防車輛及九輛救護車，並於二零零七年運抵部門。 A total of 257 fire appliances and ambulances meeting Euro-III emission standard were in service. 11 new fire appliances will be put in commission in 2006. For further uplifting the emission quality, 3 fire appliances and 9 ambulances in compliance with Euro-IV emission standard will be delivered to the Department in 2007.</p>
<p>依照政府物流服務署的環保產品清單，採購消耗品。 To procure consumable items from the Green Products List of the Government Logistics Department.</p>	<p>100%達到目標 100 % achieved.</p>	<p>100%達到目標 100 % achieved.</p>	<p>100%達到目標 100 % achieved.</p>

廢物分類及循環再用計劃 Waste Separation and Recycling Programme			
<p>分階段在部門推行廢物分類及循環再用計劃。 To implement waste separation and recycling programme in the Department by phase.</p>	<p>所有屬員均已參與廢物分類及循環再用計劃。 All members took part in the waste separation and recycling programme.</p>	<p>所有屬員均已參與廢物分類及循環再用計劃。 All members took part in the waste separation and recycling programme.</p>	<p>所有屬員均已參與廢物分類及循環再用計劃。 All members took part in the waste separation and recycling programme.</p>

通訊 Communications			
<p>把部門的環保報告書上載消防處網頁，供公眾查閱 To upload the department's Environmental Report onto our web site for public access.</p>	<p>100%達到目標 100 % achieved.</p>	<p>100%達到目標 100 % achieved.</p>	<p>100%達到目標 100 % achieved.</p>





索取資料的途徑

Sources of More Information

For more information, please give us a call at 2733 7820 or write to us at :

Fire Services Department
Fire Services Headquarters Building
1 Hong Chong Road
Tsim Sha Tsui East
Hong Kong

You may also visit our Web Site at :

<http://www.hkfsd.gov.hk>

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

hkfsdenq@hkfsd.gov.hk

如果需要更多有關資料，請致電 2733 7820 查詢，或按照下列地址致函消防處：

香港
尖沙咀東部
康莊道 1 道
消防處總部大廈
消防處

你亦可進入消防處網址瀏覽：

<http://www.hkfsd.gov.hk>

歡迎你提出寶貴意見。你可填寫夾附的意見卡，然後郵寄至上述地址，亦可電郵至下列電郵地址：

hkfsdenq@hkfsd.gov.hk

