

抱負 VISION

我們的抱負,是要成為促使 香港在機電安全及善用能源方面,都達到 世界首要都會水平的政府機構。 Our vision is to be the government agency that makes Hong Kong a top-ranking city in E&M safety and in the utilisation of energy.

使命 MISSION

我們的使命,是確保機電及能源科技

- 均以安全、可靠、經濟及環保的方式得以善用,
 - 並藉此促進社會的安全及提升生活質素。

Our mission is to enhance the safety and the quality of life of our community by ensuring that E&M and energy technologies are harnessed in a safe, reliable, economical and environment-friendly manner.

信念 VALUES

▼專業才能 「誠信 「可靠 」承擔 「Expertise 「Integrity 「Reliability 「Commitment

2001年「機電安全香港通」運動

機電工程署今年和15個主要機構合作,舉辦了可媲美本港歷來最大型的同類公眾教育活動。這次機電安全運動包括媒體宣傳及社區活動,旨在提高市民對電氣、氣體和機械安全及能源效益的認識。

E&M SAFETY CAMPAIGN 2001

In partnership with 15 key industry players, EMSD put together one of the largest public education initiatives of its kind. With a line-up of media and community activities, the Campaign aimed to increase public awareness of good practices in electrical, gas and mechanical safety as well as energy efficiency.

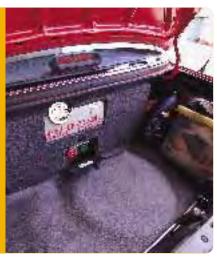


石油氣車輛計劃

政府正計劃以石油氣的士全面取代18,000 輛柴油的土。我們負責規管石油氣車輛計 劃的各種安全事宜,並就工程技術問題提 供意見。石油氣的士計劃的順利推行,使 這項計劃得以据展至小円。

LPG VEHICLE SCHEME

The government is working towards replacing all 18,000 diesel taxis with LPG models. EMSD is responsible for regulating all the safety aspects of the scheme, as well as providing advice on engineering and technology issues. The success of the scheme with taxis has paved the way for its extension to light buses.



《供電電纜(保護)規例》

我們在2000年4月制定一項新規例,規定在工地附近如有地下電纜及架空電纜,在施工前必須採取合理措施。新規例和有關實務守則,會有助防止電力意外及停電事故。

ELECTRICITY SUPPLY LINES (PROTECTION) REGULATION

A new regulation introduced in April 2000 requires that reasonable measures be taken prior to works in the vicinity of underground electricity cables and overhead electricity lines. Together with the related Code of Practice, it will help to prevent electrical incidents and power interruption.

無煙道式氣體熱水爐

為了防止無煙道式氣體熱水爐在通風不足的情況下使用時產生危險,政府已於2000年7月禁止使用供浴室或淋浴喉使用的無煙道式氣體熱水爐。該等無煙道式氣體熱水爐的數目在30個月內已由約有25,000部減至近零。

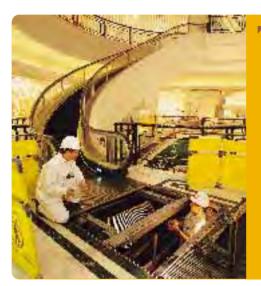
FLUELESS GAS WATER HEATERS

In a bid to avoid the danger associated with the use of flueless gas water heaters (FGWH) under inadequate ventilation, the government prohibited the use of such heaters serving bathrooms or showers in July 2000. The number of such FGWH has dropped from some 25,000 to virtually zero in 30 months!





大事回顧 ACHIEVEMENTS OF THE YEAR



升降機/自動梯工人的註冊

為提高有關工人的安全及改善業內的人力管理,我們廣泛諮詢業界、專業團體、政府部門及決策局的意見,為升降機/自動梯工人的註冊計劃擬定一項修訂條例草案。

REGISTRATION OF LIFT / ESCALATOR WORKERS

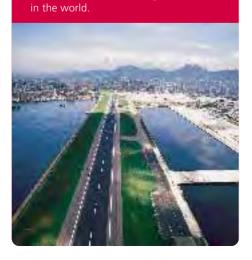
With an aim of enhancing worker safety as well as improving the management of the workforce in the industry, an amendment bill on a registration system for lift/escalator workers has been drawn up after extensive consultations with the trade, professional bodies, and government departments and bureaux.



在完成一項整體可行性研究之後,我們會 擬議東南九龍發展計劃採用以海水作冷卻 用途的區域性冷卻系統,冷卻量可達200 冷卻兆瓦,可媲美世界最大的同類冷卻 系統。

DISTRICT COOLING SYSTEM (DCS) IN SOUTH EAST KOWLOON

Following a comprehensive feasibility study, a DCS system is now proposed for the district of South East Kowloon Development using seawater for cooling purposes and boasting a cooling capacity of 200MW - one of the largest of its kind





榮獲ISO 14001環境管理系統認證, 是我們決心保護和維持香港環境綠化 的最佳憑證。

ISO 14001 CERTIFICATION

The award of ISO 14001 certificate in environmental management system gives testimony to our commitment to conserving and sustaining a greener Hong Kong.



抱負、使命及信念

本署在今年訂定新的抱負、使命和信念,為機電工程署全體員工提供明確指引,以助我們專心致志,努力提升本港的生活質素。

VISION, MISSION AND VALUES

A set of new vision, mission and values statements have been formulated this year to provide a definite guideline for all our staff at EMSD, helping us to focus our effort on enhancing the quality of life in our community.



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機電工程署高層管理人員 EMSD SENIOR MANAGEMENT



(前坐者由左起) :黎仕海先生、羅宇榮先生、傅大品先生、黃達平先生、利振球先生、何光偉先生

(Seated from Left) : Mr Lai Sze-hoi, Mr Law Yu-wing, Mr Fu Tai-pun, Mr Uy Tat-ping, Mr Lee Chun-kau, Mr Ho Kwong-wai

(站立者由左起) : 龍碧橋女士、吳勇勢先生、林本華先生、佘少權先生、霍玉衡先生、林錦權先生

(Standing from Left): Ms Pamela Loong, Mr Augustine Ng, Mr Lam Poon-wah, Mr She Siu-kuen, Mr John Floyd, Mr Lam Kam-kuen

署長 Director

黎仕海太平紳士

機電工程署署長

Mr Lai Sze-hoi, Roger, JP

Director of Electrical and Mechanical Services

副署長 Deputy Director

何光偉太平紳士

機電工程署副署長(規管服務)

Mr Ho Kwong-wai, JP

Deputy Director (Regulatory Services), EMSD

助理署長

Assistant Directors

黄達平先生

機電工程署助理署長(氣體及一般法例)

Mr Uy Tat-ping

Assistant Director (Gas & General Legislation),EMSD

總工程師

Chief Engineers

羅宇榮先生

機電工程署總機電工程師(一般法例部)

Mr Law Yu-wing

Chief Electrical and Mechanical Engineer (General Legislation Divison), EMSD

霍玉衡先生

機電工程署總工程師(氣體應用部)

Mr John Floyd

Chief Engineer (Gas Utilisation Divison), EMSD

林錦權先生

機電工程署總工程師(能源效益部 A)

Mr Lam Kam-kuen

Chief Engineer (Energy Efficiency Divison A), EMSD

會計師

Accountant

龍碧橋女士

機電工程署部門會計師

Ms Loong Pik-kiu, Pamela

Departmental Accountant, EMSD

利振球先生

機電工程署助理署長(能源效益)

Mr Lee Chun-kau

Assistant Director (Energy Efficiency),EMSD

佘少權先生

機電工程署總機電工程師(電力法例部)

Mr She Siu-kuen

Chief Electrical and Mechanical Engineer (Electricity Legislation Division), EMSD

傅大品先生

機電工程署總工程師(氣體生產及供應部)

Mr Fu Tai-pun

Chief Engineer

(Gas Production & Supply Divison), EMSD

林本華先生

機電工程署總屋宇裝備工程師(能源效益部 B)

Mr Lam Poon-wah

Chief Building Services Engineer (Energy Efficiency Divison B), EMSD

秘書

Secretary

吳勇勢先生

機電工程署主任秘書

Mr Ng Yung-sai, Augustine

Departmental Secretary, EMSD

署長報告 MESSAGE FROM THE DIRECTOR





了。 我們的抱負,是要把香港建設成在機 電安全及能源使用方面的首要都會。 為此,本署在過去一年與各界通力合 作,加強公眾教育活動。

建設香港成世界級都會

香港特別行政區政府已訂下長遠目 標,鋭意把香港建設成世界級的動 感之都,本署能參與其事,深感榮 幸。我們的抱負,是要促使香港在 機電安全及能源使用方面,達致世 界首要都會的水平。

為此,本署在過去一年與各界通力 合作,加強公眾教育活動。除負責 擬備和執行有關安全的法例外,我 們亦不斷發掘新方法,以衡量和提 高市民對機電安全及節約能源的認 識。2001年對我們饒具意義,因為

我們在年內與15家本港大公司及機 構合作,推行一項名為「機電安全 香港通」運動的全港宣傳活動。該 活動為期6個月,由2001年7月起至 12月止,目標是藉著傳媒及其他社 區渠道,提高市民的機電安全及節 能意識。

我們希望這次活動能奠下與業界合 作的基礎,共同推廣公眾安全及節 能教育。

為配合政府把香港發展成國際都會 的大計,未來10年,香港的環境事 務及可持續發展會日形重要。機電 工程署會繼續擔當積極的角色,與 其他政府部門及機構緊密合作,提 供所需的技術及工程支援,以確保 引入最先進和適合的新技術、裝置 及車輛,以及物色另類新能源,以 締造更清新的環境和更佳的生活。



Mr Lai Sze-hoi, Roger, JP

We aspire to make Hong Kong a top-ranking city in electrical and mechanical safety and the utilisation of energy. To this end, we have made a concerted effort this year to enhance our public education programmes.

Making Hong Kong a World-class City

The Hong Kong SAR Government has set out a dynamic vision of Hong Kong as a vibrant world-class city. The department is proud to play an integral role in realising this goal. We aspire to make Hong Kong a top-ranking city in electrical and mechanical safety and the utilisation of energy.

To this end, we have made a concerted effort this year to enhance our public education programmes. As an adjunct to our work in the preparation, administration and enforcement of safety legislation, EMSD has continuously sought new ways to gauge and improve the community's awareness of E&M safety and energy efficiency. The year 2001 is significant as we launched a territory-wide campaign in collaboration with 15 major companies and organisations in Hong Kong. Entitled "E&M Safety Campaign", this six-month initiative

runs from July to December 2001 and aims to use mass media and community channels to increase the public's awareness of our messages in E&M safety and energy efficiency.

We hope this will mark the beginning of more collaboration with industry in the public education arena.

長遠而言, 説服與預防工作, 定會較 執行法例更能提高安全及節能標準。



機電工程署在2001年與15家大公司及機構合作,推出一個名為「機電安全香港通」運動的全港大型宣傳活動。 In 2001, EMSD launched a territory-wide E&M Safety Campaign in collaboration with 15 major companies and organisations.

回顧與展望

回顧去年,機電工程署的工作十分 繁忙,並取得豐碩的成果。隨著香 港經濟發展邁進新紀元,我們採取 了多項措施,其中不乏重要的成 就,同時也面對很多挑戰。

我們在1996年成立機電工程營運基金,為百多個政府部門及公營機構提供具成本效益的一站式工程服務。與此同時,我們的規管服務單位則行之有年,運用當前最先進的技術,滿足市民在機電安全方面的需要,從而提高市民的生活質素。

不過,隨著機電工程署日漸發展為 一個以客為本的機構,規管服務單 位的角色,亦有需要以一種較宏觀 的客戶服務及社區服務觀點去 演繹。

其實,長遠而言,要提高香港市民 的安全及節能水平,宣傳説服遠較 執法有效。本港市民如不深信他們 必須身體力行機電安全和節省能源 的理念,香港也談不上成為世界百 要的都會。説服市民身體力行是一 項無休止的工作,必須投入無比耐 性和努力。在過去數十年,我們一 直緊守此信念,服務市民;在未來 日子,我們期望更有效地履行此 職責。

去年,機電工程署員工盡心竭力, 孜孜不倦,為客戶提供超乎期望的 服務,從而確保我們能為提高本港 生活質素而不斷作出貢獻。本人謹 此致謝。

黎仕海

機電工程署署長 黎仕海

In line with the Government's vision of Hong Kong as a world-class city, the next decade will see an increased focus on the environment and sustainable development in the SAR. At EMSD, we continue to play an active role by working closely with other government departments and agencies, providing the necessary technical and engineering support to ensure the introduction of the most up-to-date and most suitable new technologies, installations and vehicles, as well as exploring new and alternative forms of energy which will contribute to a greener future and a better quality of life for Hong Kong.

The Past Year in Perspective - and the Next

Looking back, the past 12 months have been a busy and fruitful one for EMSD. Numerous initiatives were taken up, milestone achievements made, and challenges met as Hong Kong entered a new era of economic development.

In the long run, persuasion and prevention is far more effective than policing in raising safety and energy efficiency standards.

While we established the Trading Fund in 1996 to offer cost-effective, one-stop engineering services to over one hundred government departments and public organisations, our Regulatory Services have long existed to serve the safety needs of the community and in so doing also enhance the community's quality of life. And we have done this - and done it well by harnessing the latest technologies at an opportune time.

However, as EMSD moves towards a more customer-focused organisation as a whole, our regulatory role must also be approached from a broader perspective of customer service and community service.

Indeed, in the long run, persuasion and prevention is far more effective than policing in raising safety and energy efficiency standards. Hong Kong cannot become a world-class city if its citizens are not truly convinced that they should behave in a safe and energy-efficient manner. Persuading them to do so is a never-ending task calling for utmost patience and commitment. We have taken on this role for decades and we look forward to fulfilling it even more effectively in the future.

Finally, I would like to take this opportunity to express my sincere thanks to all EMSD staff for their dedication and hard work this year. Your efforts to consistently meet and exceed the expectations of our customers ensure that we continue to contribute significantly to Hong Kong's quality of life.

Roger S H Lai Director of Electrical and Mechanical Services

Raisz Hoi

工作回顧 OPFRATIONS REVIEW



何光偉太平紳士 Mr Ho Kwong-wai, JP

Mr Ho Kwong-wai, JP

首要工作:保障公眾安全

作為要確保公眾安全的監管機構,機電工程署負責擬備、管理及執行下列範疇的安全法例:電力、氣體、 升降機及自動梯,以及機動遊戲機和架空纜車等一系 列機械裝置。

自「符合安全規格證明書」的條文制定後,我們最近 已加強了對電氣產品的監管。為避免在供電電纜附近 施工時發生電力意外,我們亦已制定有關供電電纜保 護的新規例,以策安全。

在氣體安全方面,除已擬備了低壓石油氣瓶調壓器工作守則外,我們亦已備妥了石油氣供應商工作守則。另外,又編製了住宅式氣體用具的批准工作守則,以確保在本港市面出售的產品,均符合國際認可安全標準。我們的另一成績,是監察供浴室及淋浴喉使用的無煙道式氣體熱水爐的撤銷和更換工作,確保工作盡快完成。過去30個月,此類熱水爐的數目由約25,000部已大幅減少至幾近乎零。

作為要確保公眾安全的監管機構,機 電工程署負責擬備、管理及執行下列 範疇的安全法例:電力、氣體、升降 機及自動梯,以及機動遊戲機和架空 纜車等一系列機械裝置。

機械安全方面,本署已擬備了一個升降機/自動梯工人註冊制度,年內又新設了認可升降機和自動梯牌子及型號資料庫。為籌備興建香港的迪士尼主題公園,本署就機動遊戲機裝置事宜,與迪士尼公司的專家小組已展開了緊密的磋商。

迄今為止,本港並沒有任何人因機動遊戲機或建築工 地升降機及塔式工作平台機件故障而受傷,安全紀錄 十分良好。不過,我們的宣傳工作仍必須持續,不會 掉以輕心,確保最終使用者、操作者及技術員不會由 於粗心大意而不當使用設備、或進行不安全的舉動, 令自己或他人受傷。 As a regulator and guardian of public safety, EMSD is responsible for the preparation, administration and enforcement of safety legislation in a number of areas: electricity, gas, and lifts and escalators, plus a wide array of mechanical installations ranging from amusement rides to aerial ropeways.

Protecting Public Safety Top of Our Agenda

As a regulator and guardian of public safety, EMSD is responsible for the preparation, administration and enforcement of safety legislation in a number of areas: electricity, gas, and lifts and escalators, plus a wide array of mechanical installations ranging from amusement rides to aerial ropeways.

We have recently stepped up our surveillance of electrical products with the introduction of the Certificate of Safety Compliance. A new regulation on protection of electricity supply lines was also introduced as a safety measure to prevent electrical incidents while works are carried out in the vicinity of supply lines.

As regards gas safety, a new Code of Practice for LPG distributors has recently been introduced to add to that on low pressure regulators for LPG cylinders. A Code of Practice for the approval of domestic gas appliances has also been drawn up to ensure products available for sale in the market meet internationally recognised safety standards. Another major achievement was overseeing the prompt replacement of flueless gas water heaters serving bathrooms and showers. We witnessed a dramatic drop in the number of such water heaters over the last 30 months - from some 25,000 down to virtually zero.

In terms of mechanical safety, we have drawn up a registration system for lift/escalator workers, and a database of approved brands and models of lifts and escalators was also launched during the year. In preparation for the development of the Disney Theme Park in Hong Kong, EMSD has been working closely with the Disney team on the amusement ride installations.

We are pleased to have achieved a safety record of no incident to date of personal injury caused by mechanical failure of amusement rides or builders' lifts and tower working platforms. However, continuous publicity efforts are in place to ensure that end-users, operators and technicians do not inadvertently cause injury to themselves and others through misuse of the equipment or unsafe behaviour.



為保障公眾安全,我們定期巡查市面出售的電器產品。 Regular inspections of electrical appliances on sale in shops to ensure public safety.

建設更青蔥怡人的香港

本署對能取得ISO 14001環境管理系統認證,深感榮幸。取得該認證不僅證明本署的環境管理政策已獲得肯定,同時亦是我們決心保護和維持香港環境綠化的最佳憑證。

其實,本署在此方面一直走在最前線。我們早於1994年已成立能源效益事務處,並率先推出多項節約能源和保護、改善環境的措施,如能源管理計劃、建築物能源守則、水冷式空調系統、能源效益標籤計劃、能源最終用途資料庫、能源消耗量指標及基準、與電力公司議定的用電需求管理計劃等,而這些只是我們工作的部份例子。這些計劃的最新發展,將於本報告概述。



機電工程署在今年取得 ISO 14001環境管理認證。 EMSD received this year ISO 14001 certificate in environmental management system. 我們深知獲得授權執行規管工作,目的只有一個,就是為我們的客戶 — 每名香港市民,提供更佳的服務。

此外,本署也負責與其他政府部門及機構合作,致力減少在使用能源過程中產生的污染。我們根據「管制計劃協議」,監察兩家電力公司的運作,目前正就2003年的中期檢討,作出準備。此外,旨在使本港空氣更清新的石油氣車輛計劃在的士行業推行得十分成功,現正考慮將這項計劃擴展至小巴。我們亦為室內空氣質素計劃作出努力,使政府辦事處及公眾地方的環境更為健康。此外,我們亦協助政府研究在本港使用再生能源的可行性。

雖然這些計劃或須多年方可見成效,我們仍會不斷努力,務求香港享有更青蔥怡人的環境。

我們深知,獲得授權執行規管工作,目的只有一個,就是為客戶 — 即每名香港市民,提供更佳的服務。只要本署員工上下一心,通力合作,本人深信我們定能作好充分準備,迎接未來的挑戰。

何光偉

機電工程署副署長 / 規管服務 何光偉

Towards a Greener and Cleaner Hong Kong

EMSD is proud to have received ISO 14001 certificate in environmental management system. The award not only provides recognition of our environmental management policies, but also gives testimony to our commitment to conserving and sustaining a greener Hong Kong.

In fact, we have long taken a lead in this respect. Since the establishment of the Energy Efficiency Office in 1994, we have spearheaded a number of initiatives in our drive to save energy and to help protect, sustain and improve the environment. These initiatives have included energy management programmes, building energy codes, water-cooled air conditioning systems, the energy efficiency labelling scheme, the energy enduse database and energy consumption indicators and benchmarks, and demand side management programmes developed in conjunction with the power companies, to name but a few. Recent updates of these projects are outlined in this report.

At EMSD, we understand that the authority vested in us serves one purpose only, and that is to better serve our customers — every citizen of Hong Kong.

In addition, EMSD is responsible for working with other government departments and agencies to reduce pollution arising from energy use. We have been monitoring the two power companies under the Scheme of Control Agreements, and are working towards the 2003 interim review. The LPG Vehicle Scheme - an initiative for a cleaner Hong Kong - has proven a great success for taxis, and is now being considered to extend to light buses. We also contribute to the Indoor Air Quality programmes for a healthier environment for Hong Kong's government offices and public places. In addition, we are also helping the government in a study on the potential usage of renewable energy in Hong Kong.

While some of these initiatives may take years to bring to fruition, we remain committed - for their success will ensure a greener and better Hong Kong for us all.

At EMSD, we understand that the authority vested in us serves one purpose only, and that is to better serve every citizen of Hong Kong. With the commitment of all members of staff, I have every confidence that we are well prepared to meet any challenges that we will face in the years ahead.

Ho Kwong-wai

Deputy Director (Regulatory Services), EMSD

No Knong Airi

保障公眾安全 PROTECTING PUBLIC SAFETY



保障

公眾安全

機電工程署與政府及市民通力合作,

提供機電及氣體應用的規管架構,

確保公眾安全。

AT EMSD, WE WORK CLOSELY WITH THE GOVERNMENT AND THE COMMUNITY TO PROVIDE A REGULATORY FRAMEWORK THAT WILL ENSURE PUBLIC SAFETY IN ELECTRICAL, MECHANICAL AND

PROTECTING PUBLIC SAFETY



行走電車的膠電線已更換為少煙無鹵的電線。 The PVC cables of tramcars have been replaced with Low Smoke Halogen Free cables.



機電工程署每年進行約9,000次電力裝置實地視察。 EMSD conducts about 9,000 site inspections on electrical installations each year.

電力安全

《電氣產品(安全)規例》

自有關「符合安全規格證明書」的規定於2000年12月實施以來,我們已加強了對電氣產品的監察。新條文對一般及指定情況均有規定,加強了對設計供本港家庭使用的電氣產品的法定規管。目前,所有電氣產品必須由第三者核證機構發出符合安全規格證明書,或有相關安全測試證明書或報告作為依據的製造商聲明。證明書讓各層供應商,包括進口商、代理商、分銷商、批發商及零售商得以核查他們供應的產品是否已進行測試,並達到有關的安全標準。有關符合安全規格證明書的規定,有助我們在零售層面進行執法工作。

機電工程署出版

新一版《電氣產品(安全)規例 指南》已於2001年2月出版。該 指南涵蓋有關符合安全規格證明 書的資料、詳盡的安全標準資 料,為供應商提供有用的提示和 指引,並列出已向機電工程署登 記的核證團體及製造商名單。

機電工程署出版有關電力裝置及 家庭電器的宣傳小冊子。 EMSD publishes educational booklets on electrical installations and household appliances. 機電工程署亦有參加亞太經合組織有關電氣及電子設備的雙邊認可安排。本署支持此項安排,以便進一步確保電氣產品安全,促進電氣及電子設備貿易。該安排實際上不僅能加強亞太區內各規管架構之間的了解,日後亦可望能達成對規格評估、測試報告及產品證明書的雙邊認可,從而大大提高區內電氣產品測試及安全認可的成本效益。



巡查店鋪有助《電氣產品(安全)規例》 在零售層面的執法工作。

Shop inspections facilitate enforcement of the Electrical Products (Safety) Regulation at retail level.

At EMSD, we work closely with the government and the community to provide a regulatory framework that will ensure public safety in electrical, mechanical and gas applications. With an experienced team of professional engineers, inspectors and technicians, our aim is to achieve and maintain a high standard of public safety. We administer safety legislation and issue codes of practice and guidelines on the safe use of electricity, gas, and lifts and escalators as well as in such diverse areas as amusement rides, aerial ropeways and the Peak Tramway, among others. We also act as a technical advisor to the government on a range of safety issues and provide recommendations on the legislation necessary to ensure public safety.



機電工程署負責執行各類機械工程裝置的安全規例,包括山頂纜車。 EMSD administers safety regulations on various mechanical engineering installations — Peak Tramway also falls under its ambit.

Electrical Safety

Electrical Products (Safety) Regulation

We have stepped up our surveillance of electrical products following the December 2000 introduction of the Certificate of Safety Compliance. The new provisions enhance statutory control over electrical products designed for household use in Hong Kong by mandating both general and specific safety standards. All such products must now be covered by a Certificate of Safety Compliance, awarded either through third-party certification or by a manufacturers' declaration substantiated by relevant safety test certificates or reports. The Certificate allows suppliers at all levels,

including importers, agents, distributors, wholesalers and retailers, to check whether their supplied products have been tested to the relevant safety

standards. It also facilitates enforcement of the regulation at retail level.

A new edition of the Guidance Notes for the Electrical Products (Safety) Regulation, which covers the Certificate of Safety Compliance, was published in February 2001. It features comprehensive information on the relevant safety standards, and provides practical tips and guidelines for suppliers, as well as lists of certification bodies and manufacturers registered with EMSD.

EMSD has also taken part in the APEC Electrical and Electronic Equipment Mutual Recognition Arrangement. We support this initiative as a way to further ensure product safety and to facilitate trade in electrical and electronic products. It not only promotes a better understanding of the regulatory regimes in effect in the region, but also aspires to provide for future mutual recognition of conformity assessments, test reports and product certifications. This will greatly enhance cost efficiency in product testing and safety recognition throughout the Asia Pacific region.



技術員正測試電氣產品的安全標準。 A technician testing electrical products against safety standards.



技術員及工人在本署的客戶服務中心申請註冊證明書或辦理續期手續。 Technicians and workers apply for or renew their registration at our Customer Services Centre.

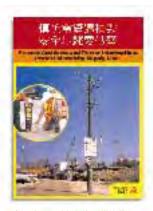
《供電電纜(保護)規例》

若帶電的供電電纜在施工期間遭切斷或受損壞,可能有爆炸的危險,在工地附近的工人或其他人員可能有觸電或燒傷之虞,而電力供應亦會受到中斷,對商業活動及市民造成極大的不便。過去7年,在施工期間發生的電纜受損壞事件共導致4人死亡、約100人受傷及超過2,000次停電。此類事件主要由於工程承辦商不小心使用挖泥機、氣動鑽機、起重機及吊重機所致。

有鑑於此,我們在2000年4月制定《供電電纜(保護) 規例》,規定在施工前,必須聘請一名合資格人士進 行檢查,以確定工地內或附近有否任何地下電纜,並 提交書面報告。我們相信新規例有助防止在這些供電 電纜附近施工時,因損壞電纜而造成的電力意外及電 力故障。

為確保有足夠的合資格人員負責探測地下電纜,機電工程署 已與建築業訓練局合作,為有 興趣人士提供培訓。

我們於諮詢建造業、電力公司 及相關政府部門的意見後,亦 已編定《有關在供電電纜附近 工作的實務守則》,提供標準 作業方法和技術指引及程序。



有關防止電纜損毀安全措施的宣傳單張。 Pamphlet on safety measures taken to protect electricity supply lines.

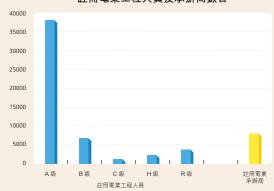
事實及數字

機電工程署負責擬訂及執行一切與《電力條例》有關的法例。

為方便執行該條例,我們制定和管理合資格電業工程人員及電業承辦商登記冊,根據安全標準監察其表現。只有已向機電工程署註冊的電業工程人員及電業承辦商,方可進行有關固定電力裝置的電力工程。註冊證書必須每3年續期一次。2001年是證書續期的高峰期:我們需要處理約25,000宗續期申請,是2000年的3倍。

實地視察對確保固定電力裝置安全至為重要。在 2000年,共進行超過8,900次定期實地視察,同時 加簽了約7,500張測試證明書。

註冊電業工程人員及承辦商數目



註:

A級:可進行最高電力需求量不超於400安培的低壓固定電力裝置的電力工程

B級:可進行最高電力需求量不超於2,500安培的低壓固定電力裝置的電力工程

C級:可進行任何電量的低壓固定電力裝置的電力工程

H級:可進行高壓固定電力裝置的電力工程 R級:可進行特別種類固定電力裝置的電力工程



Electricity Supply Lines (Protection) Regulation

If a live electricity supply line is severed or damaged during works, there is a risk of explosion and site workers and others in the vicinity are exposed to the danger of an electric shock or burns. In addition, electricity supply will be interrupted, causing considerable inconvenience to business and the public. Over the past seven years, incidents caused by damage during works have resulted in a total of four fatalities, some 100 cases of injury and over 2,000 cases of power interruption. Careless use of excavators, pneumatic drills, cranes and hoists by works contractors were found to be the primary cause of such incidents.

In view of this, we introduced the Electricity Supply Lines (Protection) Regulation in April 2000. It requires that reasonable steps and measures be taken prior to and during the course of works in the vicinity of underground electricity cables and overhead electricity lines. In the case of underground electricity cables, a competent person is required to ascertain the existence of such cables within the works site or its vicinity and to provide a written report of his findings before works commence. The new regulation, we believe, will help to prevent electrical incidents and power interruptions while works are carried out in the vicinity of these electricity supply lines.

To ensure a sufficient number of competent and qualified individuals for locating underground electricity cables, EMSD has collaborated with the Construction Industry Training Authority to offer training to interested persons.

A Code of Practice on Working near Electricity Supply Lines was also drawn up in consultation with the construction industry, power companies and relevant government departments, providing standard practices and technical guidelines and procedures.



工地附近如有地下電纜,施工前必須採取合理措施。 Reasonable safety measures must be taken prior to works in the vicinity of underground electricity cables.

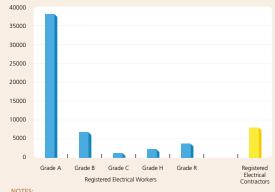
FACTS & FIGURES

EMSD is responsible for the preparation and enforcement of legislation in all matters related to the Electricity Ordinance.

In support of the Ordinance, we maintain and administer registers of qualified electrical workers and contractors, and monitor their performance in line with safety standards. Only those who have registered with EMSD are allowed to carry out electrical work on fixed electrical installations. Moreover, the certificate of registration must be renewed every three years. The year 2001 is a peak year for renewal registration: we will process some 25,000 applications; three times that for 2000.

Site inspections are key to ensuring the safety of fixed electrical installations. In year 2000, more than 8,900 regular site inspections were conducted and some 7,500 testing certificates were endorsed.

Number of Registered Electrical Workers & Contractors



NOTES:

Grade A Electrical work on low voltage fixed electrical installation of current capacity not exceeding 400A

Grade B Electrical work on low voltage fixed electrical installation of current capacity not exceeding 2,500A

Grade C Electrical work on low voltage fixed electrical installation of any current

Grade H Electrical work on high voltage fixed electrical installation

Grade R Electrical work on special fixed electrical installation

核電安全

自大亞灣廣東核電站於1994年投產後,機電工程署一直就核電事宜,為政府當局提供技術支援及工程意見。特別是為與香港有切身關係的大亞灣緊急事故應變計劃提供支援,也是我們的職責。我們已調派一隊訓練有素的專業人員專責該應變計劃。我們的工程師24小時候命,專責處理核電站發出的警告或可能發生的事故。此外,並定期進行演習,提高對緊急事故的應變能力。



實務守則:用以從容水量少 於40升的石油氣瓶供氣的低 壓調壓器。

Code of Practice on Low Pressure Regulators for Supplying Gas from LPG Cylinders Having Less Than 40 Litres Water Capacity.

氣體安全

石油氣分銷商新工作守則

我們與業界代表合作,擬備了新的工作守則,以加強對石油氣供應的監管。該工作守則分C1和C2兩個單元,單元C1詳列安全操作的必要規定,包括在各個主要分銷商號設立電腦化客戶資料庫;單元C2則列明分銷商的必要委任資格,以及透過審核和品質保證系統,監察分銷商的運作是否符合安全。在未來的12至18個月,本署會密切監察此兩個單元的實施情況。

瓶裝石油氣用的低壓調壓器

在全面諮詢石油氣業界及氣體安全諮詢委員會的意見後,我們已出版《工作守則:用以從容水量少於40升的石油氣瓶供氣的低壓調壓器》,並已刊登憲報。該守則訂明挑選、供應、安裝和使用瓶裝石油氣用的低壓調壓器的品質保證及安全規定。守則亦規定,石油氣供應公司須對所有入口貨品作出品質保證,同時亦要與分銷商網絡合作,設立全面的故障報告系統。透過這些方法及程序,本署收到任何調壓器不合安全規格的報告後,業界人士都能盡快得到警告及通知。本署亦會採取品質保證措施,每隔半年對進口商進行審核。



Nuclear Safety

Since the commissioning of the Guangdong Nuclear Power Station (GNPS) at Daya Bay in 1994, EMSD has played an integral role in providing technical support and engineering advice to the government on nuclear-related matters. Of particular interest to us in Hong Kong is the Daya Bay Contingency Plan (DBCP) for the protection of the public in the unlikely occurrence of a nuclear emergency at GNPS. A dedicated team of fully trained professional staff has been established to support the DBCP. Our engineers are also on standby around the clock to respond to any alert or incident that may occur at the nuclear power station. In addition, we regularly conduct exercises to enhance our preparedness for any such emergency.

Gas Safety

New Code of Practice for LPG Distributors

A new Code of Practice aiming to enhance the control of the supply of liquefied petroleum gas (LPG) has been prepared in collaboration with trade representatives. It comprises two modules, namely C1 and C2: C1 details the essential requirements for safe operations, including the setting up of individual computerised customer database at all main distributor outlets; C2 sets out the qualifications for the appointment of distributors, and monitors the safe operation of distributors through audit and quality assurance systems. In the next 12 months to 18 months, we will closely monitor the full implementation of the two modules.



Low Pressure Regulators for Supplying LPG Cylinders

After full consultation with the LPG industry and the Gas Safety Advisory Committee, the Code of Practice on Low Pressure Regulators for Supplying LPG Cylinders Having Less Than 40 Litres Water Capacity has been published. It stipulates quality assurance and safety requirements relating to the selection, supply, installation and use of low pressure regulators for LPG cylinders. The gazetted code also requires LPG supply companies to undertake quality assurance of all imported shipments and, in conjunction with their distributor networks, operate a comprehensive defect reporting system. These practices and procedures ensure that people in the trade will be informed and warned of any safety problem with a regulator as soon as it is reported to EMSD. We also conduct half-yearly audits on importers as a quality assurance measure.

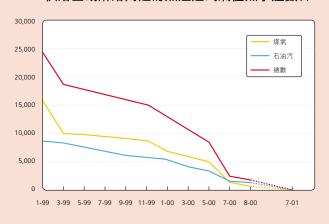


供浴室使用的無煙道式氣體熱水爐的數目在30個月內,已 由約25,000部減至近零。 The number of flueless gas water heaters serving bathrooms has dropped from some 25,000 to virtually zero within 30 months.

無煙道式氣體熱水爐

為了防止無煙道式氣體熱水爐在通風不足的情況下使用 會產生危險,政府於2000年7月已禁止使用供浴室或淋 浴喉使用的無煙道式氣體熱水爐,本署亦已隨之加強執 法行動。在過去30個月,該等無煙道式氣體熱水爐的 數目大幅減少,1999年1月約有25,000部左右,至2001 年7月則幾近乎零。

供浴室或淋浴用途的無煙道式氣體熱水爐數目



事實及數字

自《氣體安全條例》於1991年制定以來,機電工程署即負起執行與煤氣、石油氣及天然氣的進口、生產、儲存、運送、供應及使用有關的氣體安全法規。2000年,我們進行了6,000多次實地視察和探訪了氣體工程承辦商327次,不斷監察氣體工程承辦商的表現。年內,共巡查了663部石油氣缸車及石油氣瓶車,並收到523宗氣體事故報告。



氣體承辦商的表現,有賴我們的實地巡查。
Site inspection is key to monitoring performance of gas contractors.

住宅式氣體用具的批准

機電工程署與市場上的主要供應商合作,擬備了有關住宅式氣體用具的批准的工作守則,訂明住宅式氣體用具類型批准的規定。這些規定與國際認可安全標準、香港實驗所認可計劃的訂明本地評估及品質控制準則一致。目前已批准的產品類型約有240個,約佔本地住宅式氣體用具市場的八成。

我們現正草擬與強制批准計劃有關的附屬規例,並正 開始立法程序。

Approval of Domestic Gas Appliances

EMSD and leading suppliers have jointly drawn up a Code of Practice on the approval of domestic gas appliances. It sets out the requirements for approval of domestic gas appliances in accordance with recognised international safety standards, prescribed local assessment by HOKLAS Laboratories, and quality control criteria. Some 240 models have already been approved, constituting about 80 per cent of the local market of domestic gas appliances.

Associated regulations for a mandatory approval scheme are being drafted and introduced into the legislation process.

FACTS & FIGURES

With the establishment of the Gas Safety Ordinance in 1991, EMSD is responsible for the enforcement of gas safety practices in the importation, manufacture, storage, transport, supply and use of Towngas, Liquefied Petroleum Gas (LPG) and Natural Gas. In 2000, we conducted more than 6,000 site inspections and made 327 visits to gas contractors as part of an on-going effort to monitor their performance. A total of 663 LPG road tankers and cylinder wagons were inspected, and 523 gas incidents were reported during the year.



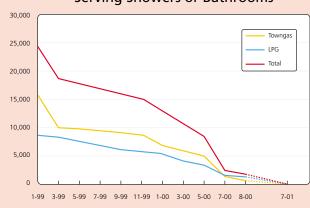


FLUELESS GAS WATER HEATERS

In a bid to avoid the danger associated with the use of flueless gas water heaters (FGWH) under inadequate ventilation, the government prohibited the use of such FGWH serving bathrooms or showers in July 2000. Accordingly, we have stepped up enforcement of the regulation and are pleased to report that the number of such FGWH has been on a dramatic decline - from some 25,000 in January 1999 down to virtually zero in July 2001.

promotional leaflets.

Number of Flueless Gas Water Heaters Serving Showers or Bathrooms



機械安全

升降機/自動梯工人的註冊

在廣泛諮詢業界、專業團體、政府部門及決策局的意見後,我們已擬定了一個升降機/自動梯工人註冊計劃,有關的修訂條例草案預計於2002/03年度提交立法會審議。擬議的註冊計劃旨在提高工人的安全,並改善業內的人力管理。根據這擬議的註冊計劃,具備有關工作經驗且符合學歷及訓練要求的工人,均有資格註冊。不合資格的工人則不能單獨進行升降機/自動梯工作,亦不能在這些工程中擔當督導職位。註冊工人須承擔法定義務及責任。若未能履行有關義務及責任,則可被檢控或須接受紀律處分。

升降機/自動梯資料庫系統

設立資料庫系統後,便可快捷準確地查閱有關升降機 及自動梯的核准牌子、型號及組件等資料,令處理及 簽發升降機及自動梯操作許可證所需的時間大大縮短, 資源的運用亦更有效率。

事實及數字

為保障公眾安全,機電工程署負責監察本港 所有升降機及自動梯、機動遊戲機、建築工 地升降機及塔式工作平台的安裝、操作和維 修。在2000年,我們共進行了超過6,000次 巡查,其中約60%的巡查對象為升降機及自 動梯,並處理了51,000份定期測試證明書。



技術員正在銅鑼灣某商場檢查自動梯。 Inspectors inspecting an escalator in a shopping mall in Causeway Bay.

Mechanical Safety

Registration of Lift / Escalator Workers

After extensive consultations with the trade, professional bodies, government departments and bureaux, we have drawn up a registration system for lift/escalator workers. The respective amendment bill is scheduled for readings in LegCo in the 2002/03 session. The proposed registration system aims at enhancing worker safety as well as improving the management of the workforce in the industry. Under the system, workers with relevant working experience who satisfy the academic and training requirements would be eligible for registration, while unqualified workers would not be allowed to carry out lift/escalator works independently or take on supervisory roles in such works. Registered workers would assume statutory duties and liabilities and failure to comply might lead to prosecution and disciplinary actions.

Lift / Escalator Database System

With the development of a new database system, relevant information on the approved brands, models and components of lifts and escalators can be quickly and accurately retrieved. This has greatly reduced the time required to process and issue permits for the operation of lifts and escalators, making for more efficient use of resources.



技術員正在為載客升降機進行定期檢查。 Technicians conducting periodic checking of passenger lifts.



我們與迪士尼公司專家小組會面,商討香港迪士尼主題公園 的機動遊戲機裝置事宜。 Meeting with the Disney team on their amusement rides installations for the new Disney Theme Park in Hong Kong.

Amusement Rides

EMSD has already begun work to ensure the safety of amusement rides in the new Disney Theme Park in Hong Kong. As the regulator of all amusement rides in the SAR, we have been liaising with the Disney team as they design their rides and prepare the detailed submissions necessary for approval.

We are proud to report that since EMSD took up the administration of the Amusement Rides (Safety) Ordinance in 1994 there have been no incidents where mechanical failure of rides in Hong Kong has caused personal injury. Going forward, we will make every endeavour to maintain this safety record. Sadly, there have recently been a small number of serious amusement ride accidents overseas. EMSD has obtained reports from the authorities investigating these accidents in order that we can learn how to better help local rides owners and operators prevent similar occurrences in Hong Kong.

FACTS & FIGURES

In ensuring public safety, EMSD monitors the installation, operation and maintenance of all lifts and escalators, amusement rides, builders' lifts and tower working platforms in Hong Kong. In 2000, we conducted more than 6,000 inspections, 60 per cent of which were of lifts and escalators, and processed some 51,000 periodic test certificates.

機動遊戲機

機電工程署已開始工作,確保未來香港迪 十尼樂園的機動遊戲機安全。作為本港所 有機動遊戲機的監管機構,我們在迪士尼 公司設計遊戲機及擬備詳細細則以供審批 時,一直與該公司保持聯繫。

自機電工程署於1994年負責執行《機動 遊戲機(安全)條例》的工作以來,本港 沒有發生由於機動遊戲機機械故障而造成 的受傷事故。展望將來,我們會竭盡所 能,以保持這個良好的安全紀錄。最近海 外曾不幸發生一些嚴重的機動遊戲機意 外,本署已向有關當局取得這些意外的調 查報告,俾能汲取教訓,以協助本港的機 動遊戲機擁有人及操作者,避免類似事件 在香港發生。



機電工程署負責規管香港特別行政區所有機動遊戲機。 EMSD is the regulator of all amusement rides in the Hong Kong SAR.

重新鋪設纜車電線

160部在本港行走電車的膠電線已換作少煙無 鹵素的電線,以減少電線在火警時可能會釋 出的毒氣。另外,由於原來的鼓形控制器的 電接點在煞車時會產生火花,容易導致意 外,故現改用電子電車速度控制器,減低火 警的危險。

架空纜車

在大嶼山東涌至昂平的新纜車工程上,我們擔當了技 術支援的角色。我們是負責評估工程建議的技術評估 委員會內的委員,且專門負責機電安全事務。我們曾 在本年初參與海外培訓計劃,了解架空索道的最新設 計。培訓計劃在各種架空索道的拯救操作及抗風能力 的要求方面特別有參考價值,有助我們修訂招標簡介。

建築工地升降機及塔式工作平台

1995年,機電工程署獲派負責確保建築工地升降機及 塔式工作平台的安全,至今雖有數宗由於操作者及/或 使用者疏忽而引致的小事故,卻沒有發生任何由於機 械故障而導致的事故。

Aerial Ropeways

We are taking an advisory role in planning for a new cable car project from Tung Chung to Ngong Ping on Lantau Island. Bringing particular expertise on E&M safety issues, EMSD is a member of the Technical Assessment panel responsible for evaluating proposals for the project. We underwent an advanced training programme overseas early this year to obtain the latest insights into the various designs of aerial ropeways. This helped us in refining the tender brief, especially in the requirements for rescue operations and the wind resistance capabilities of different ropeway models.

Builders' Lifts and Tower Working Platforms

Since EMSD was charged with the responsibility of ensuring the safety of builders' lifts and tower working platforms at construction sites in 1995, no incident of mechanical failure has occurred, though there have been a few minor incidents caused by negligence of operators and/or users.



自1995年至今,建築工地升降機及塔式工作平台未有 發生因機械故障導致的意外。 There have been no incidents of mechanical failure with builders' lifts and working tower platforms



執行《架空纜車(安全)條例》是本署的其中一項工作。 Administration of the Aerial Ropeways (Safety) Ordinance is one of EMSD's responsibilities.

RE-WIRING OF TRAMCARS

The PVC cables of the 160 tramcars operating in Hong Kong have been replaced with Low Smoke Halogen Free cables to minimise the emission of toxic gases that could occur during a fire. As for avoiding fire risk, Electronic Tram Speed Controllers are now being used in place of the original drum controllers, which were accident-prone due to the presence of sparks at the electric contacts during braking.

推廣能源效益 PROMOTING ENERGY EFFICIENCY



推廣能源效益

能源效益事務處在1994年成立,宗香港推動能源效益及節約計劃。
THE ENERGY EFFICIENCY OFFICE
WAS ESTABLISHED IN 1994 TO
SPEARHEAD THE DRIVE FOR

CONSERVATION PR

HONG KONG.

PROMOTING

ENERGY EFFICIENCY



取得能源效益標籤的產品型號,市場渗透率日漸上升。 Market penetration of energy efficiency labelled models has been on the rise.



能源效益標籤計劃現已覆蓋家庭電器和辦公室設備。 The Energy Efficiency Labelling Scheme now covers both household appliances and office equipment.

能源效益事務處於1994年成立,宗旨是在香港推動能源效益及節約計劃。能源效益事務處的工作結合了我們對最新科技的了解,以及對香港社會需求的認識。能源效益事務處負責制訂指引及的版工作守則,並積極參與研究有效使用及節香港的工作小組和相關的委員會。為了協助香港的工作小組和相關的委員會,我們推行了連串措施,包括推行能源管理和能源需求管理計劃。能源效益事務處亦率先使用創新效益標籤計劃。能源效益事務處亦率先使用創新效益標籤計劃。能源效益事務處亦率先使用創新的節能科技,特別是空調、照明和升降機及自動梯的控制系統。我們在這方面的成績,有助確保香港市民能享有更青蔥的環境和更光明的將來。

能源管理

本署的能源管理計劃提供了一個有效使用能源資源和 持續管理的框架。為了了解能源是如何消耗及在哪方 面消耗掉,我們在開展能源管理計劃前會先進行能源 審核。

我們的首次能源審核於1994年進行。當時我們參與了政府首次能源管理審核的工作。自此,本署共進行了144次審核,當中包括所有主要的政府建築物,透過改良操作及管理模式,估計每年節省的能源數量累計超過46太焦耳,相等於約5,000部窗口式冷氣機在正常使用下的每年耗電量。

能源審核有助找出能源管理機會,也就是可以 節省能源和金錢的機會。能源管理機會可分三 類:第一類在推行時是無須任何資本投資的, 第二類可以相對較低的費用來推行,而第三類 則須要大量資金才能進行,回本期由3至8年不等。若 所有已審核的建築物均全面推行本署在審核報告所建 議的第一類和第二類能源管理機會,每年節省的能源 數量估計達322.7太焦耳,或金額達8,000萬元(以目 前的物價指數計算)。本署已於1999年展開對已審核 的建築物的跟進工作,以確保所建議的能源管理機會 得以落實。



一個高輸出的T5燈照明系統現已於東啟德室內運動場應用(見右圖), 與現有使用高強度放電燈的高位照明系統比較,初步結果顯示可節能 超過四成(見上圖)。

The Energy Efficiency Office was established in 1994 to spearhead the drive for energy efficiency and conservation programmes in Hong Kong. We combine an in-depth understanding of the latest technological breakthroughs with knowledge of the precise needs of the Hong Kong community. The Office works to establish guidelines and issue codes of practice, and is actively involved in working groups and related committees that investigate the efficient use and conservation of electricity. To help Hong Kong save energy and protect, sustain and improve its environment, we have implemented a range of initiatives, including Energy Management and Demand Side Management programmes, energy end-use database management, benchmarking, and an energy efficiency labelling scheme. The Office is also engaged in pioneering the use of innovative energy-saving technologies, particularly in air conditioning, lighting and lift and escalator control systems. Our successes in this direction will help to ensure a greener and brighter future for all of us in Hong Kong.

Energy Management

Our Energy Management programmes provide a framework for the efficient use and ongoing management of energy resources. To understand how and where energy is consumed, we begin every Energy Management programme with an energy audit.



A high-output T5 lighting systems is now in operation at East Kai Tak Indoor Games Hall (see photo above). Preliminary results indicate an energy saving of over 40 per cent when compared with the existing high bay lighting system using High Intensity Discharge lamps (see photo on left).

Our first such appraisal dates back to 1994 when we took part in the government's pioneering audit on energy management. Since then, EMSD has conducted 144 audits, covering all major government buildings. It is estimated that the cumulative energy savings per year through improved operational and house-keeping practices amount to more than 46 Tera Joule (TJ) - equivalent to the annual consumption of some 5,000 room coolers in normal use.

Energy audits help identify Energy Management Opportunities (EMOs) where savings of energy and money can be made. EMOs are divided into three categories: Category I requires practically no capital investment to implement; Category II can be implemented at relatively low cost; while Category III requires substantial capital outlay with a payback period ranging from three years to eight years. If all the buildings audited were to fully implement the Category I and Category II EMOs recommended by EMSD in its audit reports, the estimated annual energy saving would amount to 322.7 TJ, or \$80 million in monetary terms (at today's pricing index). Follow up actions on the audited buildings commenced in 1999 with a view to ensuring the EMOs recommended were implemented.



產品上的能源效益標籤,使消費者得知產品的能源消耗及效率評級資料。

The energy efficiency label on a product informs customers of its energy consumption and efficiency rating.



節能設備

為了盡量利用新的節能科技及設備,機電工程署推行了試驗這些能源管理設施的計劃。第一階段計劃已於1999年3月完成,並每年節省約6.8太焦耳的能源。有關計劃的結果亦顯示,所改裝的節能設備均符合成本效益,估計若使用能降低熒光燈用電量的電子鎮流器,以及按需要調節冷氣供應的可變速驅動器,回本期為3至4年。

第二階段計劃已於2000年展開,就最新的能源 科技進行進一步研究。我們在北角政府合署的 自動梯電機驅動系統安裝善用能源裝置,俾能 讓自動梯處於輕載或空載情況時節省能源,並 於旺角政府合署安裝了智能升降機控制系統, 以改善能源消耗及升降機的載客情況。我們亦 把選定政府建築物的交流電雙速升降機驅動 器,改為變壓變頻升降機驅動器。

最近,我們在九龍公園安裝了間接蒸發式熱能回收系統,並正進行測試,預計可節省三成的能源。我們已於一些政府辦事處,安裝及測試設有光及使用情況感應器的新T5熒光燈及照明器,而一種高輸出的T5燈照明系統現正於東啟德室內運動場使用,俾能與現有使用高強度放電燈的高位照明系統比較,初步結果顯示可以節省超過四成能源。

能源效益標籤計劃

能源效益標籤計劃於1995年6月首度推出,這項措施旨在提高市民在日常生活中對節約能源和改善環境的意識。產品上的能源效益標籤可令有意購買產品的顧客得知其能源消耗及效率評級,並鼓勵市民購買具能源效益的產品。

在1999年進行的調查顯示,與市場上所有的電氣產品型號比較,已取得標籤的型號的市場滲透率約為一成至五成,預期滲透率在1999年以後會進一步上升。

該計劃現時以家庭電器和辦公室設備為對象,包括家用雪櫃、空調裝置、洗衣機、電動乾衣機、緊湊型節能熒光燈,最近亦把儲水式電熱水爐和影印機包括在內。我們現正計劃在2001年年底,把電飯煲和多功能辦公室設備納入計劃內。

此外,我們亦已草擬汽油載客車輛能源效益標籤計劃,並預備於2001年年底推行。



香港科技大學實驗室內正進行冷氣機能源效益標籤測試。 Testing of air-conditioners for energy efficiency labelling at a laboratory in the Hong Kong University of Science and Technology.

Energy Saving Equipment

To make the most of the new development in energy-saving technology and equipment, EMSD has implemented the Pilot EMO Implementation Programme. The Phase I Programme that ended in March 1999 resulted in an estimated savings of about 6.8 TJ per annum. Results also indicated that retrofitting energy-efficient equipment was cost effective, with an estimated payback period of three to four years for electronic lighting ballast equipment which minimises electricity consumption by fluorescent lamps, and for variable speed drives which regulate levels of air conditioning supply according to demand.

Launched in 2000, the Phase II Programme further investigates innovative energy technology. Energy optimisers have been installed in the escalator motor driving systems at North Point Government Office Building to save energy while escalators are operating in light-load or no-load conditions. We have also installed an intelligent lift control system in Mongkok Government Office Building to improve energy consumption and lift traffic performance. The upgrading of Alternate Current two-speed lift drives to Variable Voltage Variable Frequency lift drives is in progress at selected government buildings.

We have also recently installed an indirect evaporating heat recovery unit in Kowloon Park. Now undergoing testing, it is expected to generate an energy saving of 30 per cent. The new T5 fluorescent lamps and luminaries, incorporating photo and occupancy sensors, have been installed and tested in a number of government offices. A high-output T5 lighting system is now in operation at East Kai Tak Indoor Games Hall in a comparative study with the existing high bay lighting



system using High Intensity Discharge lamps. Preliminary results indicated an energy saving of over 40 per cent.

符合建築物能源守則的大廈,可獲得註冊證書。 Registration certificate issued to buildings meeting the Building Energy Codes.



員工於先進的實驗室內測試電氣產品的能源效益表現。 Monitoring energy performance of electrical products at a stateof-the-art laboratory.

Energy Efficiency Labelling Scheme

First introduced in June 1995, this scheme is a government initiative aiming to promote public awareness of energy conservation and environmental improvement needs in daily life. The energy efficiency label on a product informs potential customers of its energy consumption and efficiency rating, encouraging the public to purchase energy-efficient products.

A survey conducted in 1999 revealed the market penetration of labelled models with respect to the total models in the market ranged from 10 per cent to 50 per cent. We expect that the penetration rate would have risen further since that time.

The labelling scheme now covers both household appliances and office equipment, including household refrigerators, air-conditioners, washing machines, electric clothes dryers, compact fluorescent lamps, and most recently, electric storage water heaters and photocopiers. Plans are in hand to include electric rice cookers and office equipment on multifunctional devices under the scheme by the end of 2001.

An Energy Efficiency Labelling Scheme for Petrol Passenger Cars has also been drafted and is ready for implementation by the end of 2001.

支持政府措施 SUPPORTING GOVERNMENT INITIATIVES



支持

政府措施

機電工程署與其他政府部門緊密合作,在一些 政府措施上提供技術和工程方面的支援。

IN WORKING CLOSELY WITH OTHER DEPARTMENTS, EMSD PROVIDES TECHNICAL AND ENGINEERING SUPPORT ON A NUMBER OF GOVERNMENT INITIATIVES.

SUPPORTING GOVERNMENT INITIATIVES



機電工程署負責監管石油氣加氣站的安全及審批。 EMSD is responsible for safety control and approval of LPG filling stations.



機電工程署就未來供電業界的重要技術問題向政府提出意見。 EMSD advises government on the technical issues important to the future of the electricity supply sector.

為減少能源消耗所產生的污染和減低本港對化石燃料的倚賴,機電工程署與其他政府部門及機構緊密合作,提供技術及工程方面的支援,以確保為香港引入最合適的新技術、裝置及車輛。機電工程署負責規管石油氣車輛計劃的安全事宜。根據該計劃,全港所有柴油的士將於2005年年底前改裝為石油氣的士。此外,為小巴進行的試驗計劃亦已完成。我們亦已開始進行一項監察及改善政府辦事處及公眾地方室內空氣質素的三年計劃。我們亦正為可能引入天然氣作為另類燃料能源作出部署,並就未來供電業界的重要技術問題向政府提出意見。此外,我們正協助政府研究再生能源如太陽能、風能和水力(波浪)能的發展潛力。該項研究的其中一環,是在灣仔政府大樓試驗使用太陽能的可行性。機電工程署樂意努力為香港建設更環保的將來和提供更佳的生活質素。

監察電力公司

機電工程署作為政府在電力供應方面的顧問和電力公司的監管機構,根據「管制計劃協議」監察本港兩間電力公司的技術表現和發展計劃。由1994年起我們每年都審核電力公司的技術表現。鑑於現行的「管制計劃協議」將於2008年屆滿,並將於2003年進行下一次中期檢討,我們正向經濟局提供技術及專業意見,為供電業界規劃未來的發展方向。此外,我們亦已委託顧問公司對增加電力聯網安排的技術問題進行研究。我們亦派員造訪英國、美國和澳洲,參考其他地區在重組電力市場方面的經驗。

石油氣車輛計劃

我們在1998年進行了一項石油氣的士路面試驗計劃, 為期一年,參與的石油氣的士達30輛。鑑於該計劃十 分成功,政府正計劃在2005年年底前以石油氣的士全 面取代全港18,000輛柴油的士。我們負責規管石油氣 車輛計劃的各種安全事宜,並就工程技術問題提供意 見,包括強制性的安全監管以及審批石油氣車輛、加



工作人員實地視察石油氣加氣站的運作。 An inspector conducting site inspection of a LPG filling station.

To reduce pollution arising from energy use and to lessen Hong Kong's reliance on fossil fuels, EMSD, working closely with other government departments and agencies, provides technical and engineering support to ensure the introduction of the most appropriate new technologies, installations and vehicles. EMSD is responsible for regulating the safety aspects of the LPG Vehicle Scheme, under which all Hong Kong's diesel taxis will be converted to LPG by the end of 2005. Light bus trials have also been completed. We also commenced a three-year programme that will monitor and improve indoor air quality in government offices and public places. We are also preparing for the possible introduction of natural gas as an alternative fuel source and advising government on the technical issues important to the future of the electricity supply sector. In addition, we are helping the government investigate the potential of renewable energy resources, such as solar, wind and wave energy. As part of study, the government offices at Wanchai Tower will test the viability of solar energy. EMSD is pleased to play an active role in Hong Kong's drive for a greener future and a better quality of life.





政府正落實以石油氣的士取代全部18,000輛 柴油的士的計劃。 The government is working towards replacing all 18,000 diesel taxis with LPG models.

Utility Monitoring

As the government's advisor and regulator on electricity utilities, EMSD monitors the technical performance and development plans of Hong Kong's two power companies under the Scheme of Control Agreements (SCAs). We have been conducting an annual audit of their technical performance since 1994. As the current SCAs

are due to expire in 2008 with the next interim review scheduled for 2003, we have been providing technical advice and expertise to the Economic Services Bureau in mapping out the future direction of the electricity supply sector. Moreover, a consultancy study was commissioned to investigate the technical issues of increasing interconnection in the electricity supply sector. Study visits were made to the United Kingdom, the United States and Australia to learn from their experience of restructuring electricity markets.

LPG Vehicle Scheme

In view of the success of the one-year road test carried out on 30 LPG taxis in 1998, the government is working towards the eventual replacement of the 18,000 diesel taxis in Hong Kong with LPG models by the end of 2005. We are responsible for regulating all the safety aspects of the LPG Vehicle Scheme, as well as providing advice on engineering and technology issues.

事實及數字

目前在全港道路上共有約12,000輛石油氣的 士行駛。現時共有15個石油氣加氣站已投入 運作,到今年年底將一共有約40個石油氣加 氣站。現時共有20個石油氣車輛維修站在運 作中,另有4個維修站正在興建。約有600名 石油氣車輛修理技工已向機電工程署登記或 註冊。

氣站、維修站和為曾受訓練的石油氣修理技工註冊。 我們亦出版了有關石油氣加氣站及維修站的氣體安全 工作守則,並負責監察這些加氣站及維修站的運作。

石油氣小巴試驗計劃亦已完成。我們的目標是協助政府以石油氣小巴取代現有小巴,作為政府環保措施的一部分。

室內空氣質素

研究顯示,一般人有超過七成的時間用在室內環境之中,包括在家、工作或娛樂,因此室內空氣質素對我們健康的重要性,並不低於室外空氣質素。機電工程署在這方面一向發揮帶頭作用,自八十年代中期起便自發進行室內空氣質素測試。1994年,我們成立了專責小組,負責量度政府及公共建築物的室內空氣質素,

並就改善措施提供建議。我們的工作 為政府的室內空氣質素管理計劃及其 後的檢定計劃奠定了基礎。

室內空氣質素管理計劃

機電工程署作為室內空氣質素管理方面的先驅,積極參與室內空氣質素管理小組的工作。該小組由環境食物局擔任主席,成員包括各有關政府部門,負責制定室內空氣質素管理計劃,以保障公眾健康。該小組在1999年11月公布了「室內空氣質素管理指引」的初稿;又在2000年8月公布了「參與室內空氣質素檢定指南」的初稿。

機電工程署已獲指派負責在三年內檢測所有政府樓宇, 以核實這些樓宇是否符合指引所載的標準。2000年已 完成對72座政府樓宇的室內空氣質素檢測試驗,現正 分析所得結果,並計劃在2003年之前分兩階段完成對 其餘630座政府樓宇的室內空氣質素檢測。

室內空氣質素基準及量度方法

今年,室內空氣質素的基準,仍在檢討階段。在評定 最適合香港的標準時,我們參考了外國經驗、國際標 準,以及本港的情況和限制作出提議。此外,本署於 2000年年底委託了香港科技大學進行一項室內空氣質 素量度方法的研究。

公共交通設施

香港特區政府監察及改善室內空氣質素的工作已由建築物擴展至設有空調的公共場所,例如火車、巴士及渡輪。2001年3月公布了「管理空調公共運輸設施空氣質素專業守則」的初稿。



技術員正於某政府大樓內量度室內空氣質素。 A technician measuring Indoor Air Quality in a government building.

These include mandatory safety control and approval of LPG vehicles, filling stations, and maintenance workshops and registration of trained LPG vehicle mechanics. We have also published Codes of Practice on gas safety for LPG filling stations and maintenance workshops, and are tasked with monitoring their operation.

The LPG light bus trial scheme has also been completed, and we are aiming to assist the government for a switch to LPG models as part of its environmental protection initiative.

Indoor Air Quality

Studies reveal that we spend more than 70 per cent of our time in an indoor environment - at home, at work or at play. Indoor Air Quality (IAQ) is thus no less important than outdoor air to our health and well-being. EMSD has long taken a pioneering role in this area, conducting IAQ tests on a voluntary basis since the mid 1980s. In 1994, we set up a dedicated team to measure IAQ in government and public buildings, and provide recommendations on improvement measures. Our work has prepared the groundwork for the government's IAQ management programme and subsequent certification scheme.

IAQ Management Programme

As a pioneer in this area, EMSD is actively involved in the IAQ Management Group, which is formulating the IAQ management programme to protect public health. Chaired by the Environment and Food Bureau, the Management Group comprises members from various concerned government departments. The draft Managing IAQ: A Consultation Paper and Guidance Notes for the Management of IAQ in Offices and Public Places were published by the Management Group in November 1999; and a draft of A Guide for participation in the IAQ Certification Scheme and IAQ Certification Guide were released in August 2000.

FACTS & FIGURES

At present, there are about 12,000 LPG taxis on the road. Fifteen LPG filling stations are now in operation and a total of about 40 LPG filling stations will be made available by the end of this year. Twenty LPG vehicle maintenance workshops are in operation and four LPG workshops are under construction. About 600 LPG vehicle mechanics are enlisted or have registered with EMSD.

EMSD was tasked with surveying all government buildings over a three-year period, and certifying buildings that comply with standards in the Guidance Notes. The IAQ measurement trial in 72 government venues was completed in 2000. Results are being analysed. It is planned that IAQ measurement for the remaining 630 government venues will be completed in two phases by 2003.

IAQ Benchmarks and Measurement Methodologies

IAQ benchmarks have been under review this year. In evaluating the standards best suited for Hong Kong, we have provided advice drawing on overseas experience, international standards, and the local situation and constraints. In addition, the Hong Kong University of Science and Technology was commissioned by EMSD in late 2000 to conduct a study on IAQ measurement methodologies.

PUBLIC TRANSPORT FACILITIES

The HKSAR Government's drive to monitor and improve IAQ has been extended from buildings to other air-conditioned public environments, such as trains, buses and ferries. The draft Practice Notes for Managing Indoor Air Quality in Airconditioned Public Transport Facilities was published in March 2001.

再生能源

如果能源消耗量繼續以現時的水平增長,估計到2010年二氧化碳的排放量將較2000年的水平增加39%。為努力減少因耗用能源而造成的污染和減低本港對化石燃料的倚賴,機電工程署在2000年11月委託顧問公司研究使用如太陽能、風能及水力(波浪)能等再生能源的可行性。

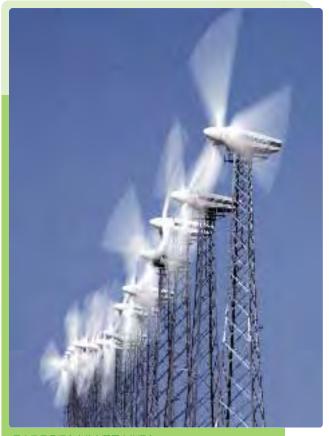
上述為期32個月的再生能源顧問研究,將對各種適合本港使用的再生能源技術作出評估。該項研究亦會制定措施,以便為引入及維修這些技術作出支援,並就實施策略提出建議。

目前太陽能在本港主要用於為部分泳池和上水屠房提供熱水。此外在某些偏遠地區亦已安裝能產生有限度 電力的小型光電及風力發電系統,以提供照明及實地 資料紀錄設備所需的電力。

作為再生能源顧問研究的一部分,灣仔政府大樓將會 安裝光伏板,並與大樓的現有配電網絡連接。這項計 劃所蒐集得的數據會用來評估附設於建築物的光伏系 統的效能。我們希望在上述政府大樓所進行的試驗計 劃可向公眾顯示再生能源是可資利用的。



為減少因耗用能源而造成的污染和減低本港對化石燃料的倚賴,機電工程署委託顧問公司進行一項為期32個月的再生能源研究。 EMSD commissions a 32-month consultancy study on renewable energy as a bid to reduce pollution arising from energy use and to lessen Hong Kong's reliance on fossil fuels.



風力發電是研究中的多種再生能源之一。 Wind power is among the several renewable energy resources under study.

天然氣

天然氣是清潔的燃料,在外國廣泛用於住宅、商業、工業及發電用途。1996年本港首次使用天然氣,但只限於龍鼓灘和青山發電廠的發電用途。上述天然氣是由海南島外的氣田,經一條780公里長的高壓海底管道輸送至香港。

政府已表示,支持進一步將天然氣用於發電。在這方面,在深圳興建中的一個液化天然氣儲存庫,於2005年啟用時,會為引入天然氣作為本港另類燃料能源創造條件。

我們已著手考察海外天然氣市場的運作及規管模式, 從而研究在香港引入天然氣市場是否可行。

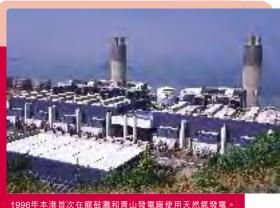
Renewable Energy

If energy consumption continues to increase at existing levels, the carbon dioxide emissions generated in 2010 are projected to have grown by 39 per cent from the 2000 level. In a bid to reduce pollution arising from energy use and to lessen Hong Kong's reliance on fossil fuels, EMSD commissioned a consultancy study in November 2000 to investigate the viability of using renewable energy resources such as solar, wind and wave energy.

The 32-month renewable energy consultancy study will evaluate various renewable energy technologies appropriate for local use. The study will also identify practical measures to support the introduction and maintenance of these technologies, and recommend implementation strategies.

In Hong Kong, solar energy is currently used primarily to provide hot water for a number of swimming pools and for the slaughterhouse in Sheung Shui. Some small-scale photoelectric and wind systems, generating nominal electric power, have also been installed in remote areas to operate lighting and on-site data recording equipment.





1996年本港首次在龍鼓灘和青山發電廠使用天然氣發電。 Natural gas was first used in Hong Kong in 1996 for power generation at the Black Point and Castle Peak power stations.

As part of the renewable energy consultancy study, the government offices at Wanchai Tower will be equipped with photovoltaic panels, connected to the existing electricity distribution network serving the building. Data collected from the project will be used to assess the performance of Building Integrated Photovoltaic systems. It is hoped that this pilot test site will serve to demonstrate to the general public the applicability of renewable energy technologies.

Natural Gas

Natural gas is a clean fuel that is widely used overseas for domestic, commercial, industrial and powergeneration purposes. It was first used in Hong Kong in 1996, exclusively for power generation at the Black Point and Castle Peak power stations. The gas is imported from a gas field off Hainan Island via a 780-kilometre high-pressure submarine pipeline.

The government has expressed its support for the further use of natural gas for power generation. In this regard, a liquefied natural gas terminal will be built in Shenzhen to commence operation in 2005, opening up the possibility of introducing natural gas as an alternative fuel source in Hong Kong.

We have started looking into the operational and regulatory arrangements for natural gas markets in relevant overseas countries for the possible introduction of a natural gas market for Hong Kong.

提高公眾安全及節能意識 RAISING PUBLIC AWARENESS



提高

公眾安全及節能意識

公眾教育是我們工作的重要環節,我們致 力提高公眾對有關問題的認識,並鼓勵市 民導從正確的安全守則。

PUBLIC EDUCATION IS AN IMPORTANT
ASPECT OF OUR ACTIVITIES AS WE
WORK TO FOSTER AWARENESS OF THE
ISSUES INVOLVED AND TO REINFORCE
POSITIVE SAFETY PRACTICES WITHIN

RAISING PUBLIC AWARENESS



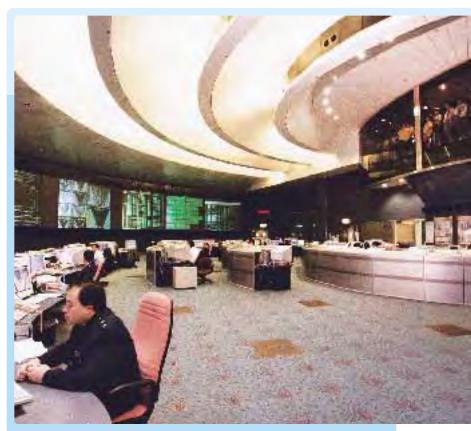
「機電安全嘉年華2000」的現場表演星光熠熠,歌星和藝員參與演出。 E&M Safety Carnival 2000 featured a live show with popular singers and artistes.



「機電安全香港通」運動的學生安全大使,正參觀機場管理局,作為訓練的一部份。 Student Safety Ambassadors visiting the Airport Authority as part of a training session for the E&M Safety Campaign.

升降機及自動梯 安全運動

2000年5月,機電工程署聯同6個主要機構舉辦了為期兩個月的升降機及自動梯安全運動。參與機構為香港機場管理局、香港物業管理公司協會、香港房屋委員會、九廣鐵路公司、這項運動包括一個漫畫創作比賽,共收到800多份學生和成人創作的作品。這項運動包括一個漫畫創作比賽,共收到800多份學生和成人創作的作品。這項安全運動的壓軸節目,是假座荷李活廣場舉行綜合表演。通過上述及其他宣傳教育活動,提高了參與機構和市民的安全意識,而安全使用升降機和自動梯的訊息亦得以廣泛傳播。



機場管理局是「機電安全香港通」運動的15個協辦機構之一。 The Airport Authority is one of the 15 collaborating organisations of the E&M Safety Campaign.

A key role of EMSD is keeping the public safe from electrical, mechanical and gas accidents or incidents. We implement and enforce safety legislation and have introduced a wide range of safety standards and practices. We are also actively involved in promoting energy efficiency. Public education is an important aspect of our activities as we work to foster awareness of the issues involved and to reinforce positive safety practices within the community. We take this message to the community through a number of different channels, including publications, promotional and advertising campaigns, posters and mail outs, carnivals and road shows, games, contests and quizzes, and safety talks and seminars.



機電工程署署長在「機電安全香港通」運動開幕禮上致辭。 The Director of Electrical and Mechanical Services speaks at the launch ceremony of the E&M Safety Campaign.



升降機及自動梯安全運動的活動。
The Lifts & Escalators Safety Campaign in action.

Lifts & Escalators Safety Campaign

In May 2000, EMSD joined forces with six major organisations to stage a two-month Lifts & Escalators Safety Campaign. Our partners in this initiative were the Airport Authority Hong Kong, the Hong Kong Association of Property Management Companies, the Hong Kong Housing Authority, the Kowloon-Canton Railway Corporation, the Lift and Escalator Contractors Association, and the MTR Corporation. The campaign featured a cartoon drawing competition, which received more than 800 entries from students and adults, and culminated in a variety show at Plaza Hollywood. Through these and other promotions and educational activities, the safety awareness of our partner organisations and the general public was raised and the safe use of lifts and escalators was widely publicised.

和香港電台合作「機電安全嘉年華 |

機電工程署和香港電台在2000年攜手舉辦了一項全港性的運動,旨在鼓勵市民在日常生活中採取正確的機電安全措施。

在運動期間,香港電台每天均在第二台的「晨光第一線」節目中撥出廣播時間宣傳有關安全的提示和信息,並在6月和10月播出一系列宣傳廣播和教育訪問,以進一步提高市民對機電安全的認識。

此外,還邀請市民參加有關機電安全及能源效益的問答遊戲。在4,000名參賽者中,超過100名答對全部問題。他們均獲邀參加安排於「機電安全嘉年華」節目中舉行的總決賽。在2000年11月假座荃灣愉景新城舉行的機電安全嘉年華是運動的閉幕節目,內容包括歌星和藝員的現場表演、互動式展覽和攤位遊戲。

本港歷來最大型的機電安全運動

繼2000年成功舉辦安全運動後,機電工程署在今年再接再勵,和15個來自公用事業、公共交通、屋宇物業管理,以及機電界行業協會等不同行業的主要機構合



電視綜藝節目有助提高公眾的安全意識。 Variety shows on television help raise the community's safety awareness.

作,舉辦了一項更大型的運動。這次運動可媲美本港歷來最大型的同類公眾教育運動,包括一連串為時6個月(由2001年7月至12月)的宣傳及社區活動。

「機電安全香港通」運動旨在提高市民對安全和使用 電器及裝置、氣體用具、升降機及自動梯的正確方法 的認識,並且喚起市民對能源效益的關注。

這項運動由機電工程署和15個主要機構協力舉辦,向 公眾清楚傳達了一項信息,就是政府和私人機構團結

> 一致,務求令香港成為一個最安全 和最適合居住的城市。

> 這項運動分為三個階段,每一階段 為時兩個月,各有不同重點。第一 階段以升降機和自動梯安全為重 點,在6月展開了安全大使招募行 動。一批自願參加的市民接受訓練 負責傳達安全訊息。第二階段以 育 有 管 包括進行全港性的家訪服務,為 住戶提供一次免費電力安全檢查和 進行能源效益測試。



機電工程署與15個主要機構和業界協會合作,舉辦「機電安全香港通」運動。 EMSD joins forces with 15 leading organisations and trade associations to launch the E&M Safety Campaign.

Joint Effort with RTHK

EMSD joined forces with Radio Television Hong Kong (RTHK) on a territory-wide campaign in 2000. Our aim was to encourage the public to adopt good electrical and mechanical safety practices in their daily lives.

During the campaign, RTHK devoted daily airtime on its "Morning Suite" programme on Radio 2 to publicise relevant safety tips and messages. Throughout June and October, RTHK also aired a series of promotional trailers and educational interviews to further promote public understanding of electrical and mechanical safety.

Members of the public were invited to take part in a quiz on E&M safety and energy efficiency. Over 100 out of some 4,000 participants who had given all-correct answers to the quiz questionnaire were invited to the final competition held at the finale event - E&M Safety Carnival. It took place in November 2000 at Discovery Park, Tsuen Wan, and featured a live show with popular singers and artistes, as well as interactive exhibitions and booth games.



「機電安全香港通」運動奠下與業界加強合作、共同推廣公眾教育的基礎。 The E&M Safety Campaign marks the beginning of more collaboration with industry in the public education arena.

The Largest Ever E&M Safety Campaign in Hong Kong

Following the success of the safety campaign in 2000, EMSD re-doubled its efforts this year, putting together an even more ambitious campaign in partnership with 15 key industry players from the utility, public transport, housing and estate management sectors as well as trade associations in the electrical and mechanical field. The campaign was by any standard one of the largest public education initiatives of its kind to be staged in Hong Kong. It comprised a line-up of publicity and community activities spanning six months from July to December 2001.

The E&M Safety Campaign aimed to enhance the community's awareness of safety and good practices in the use of electrical appliances and installations, gas appliances, and lifts and escalators as well as draw attention to the importance of energy efficiency.



我們採用展板和互動遊戲,旨在提升公眾對使用家庭電器的安全意識。 Display panels and interactive games designed to enhance public awareness of safety and good practices in the use of electrical appliances.

第三階段亦即最後階段則以氣體安全為重點,邀請市 民填答有關氣體安全方面的問題,寓教育於娛樂。其 他活動還包括巡迴展覽、安全研討會和問答比賽,以 及電視綜合節目。同時機電工程署亦在全港各中學進 行巡迴展覽,直接向青少年傳達安全訊息。

與機電工程署合辦2001年「機電安全香港通」運動的 15個機構分別為:香港機場管理局、香港加德士有限 公司、華潤石油氣有限公司、中華電力有限公司、埃 索石油香港有限公司、香港中華煤氣公司、香港物業 管理公司協會、香港電燈有限公司、香港房屋委員會、 香港液體氣(集團)有限公司、九廣鐵路公司、電梯 業協會、香港美孚石油有限公司、香港地下鐵路公司 和香港蜆殼有限公司。



工作人員示範如何安全地使用家庭電器。 Staff of EMSD demonstrating the safe use of household appliances.



我們到各中學進行巡迴演出及展覽,直接向青少年學生傳達安全訊息。 Road shows at secondary schools aim to convey safety messages directly to teenagers.

With the collaborative effort of EMSD and 15 leading organisations, the message that the government and the private sector were in unison in their commitment to making Hong Kong one of the safest and best cities to live in was well communicated to the public.

The campaign consisted of three two-month episodes, each with a different focus. The first, Lifts and Escalators Safety, launched a Safety Ambassador Recruitment initiative in June. Volunteers from the general public were trained to spread the safety messages. The second episode, Electrical Safety and Energy Efficiency, featured a territory-wide home-visit service, offering households a free electrical safety check and conducting an energy efficiency survey. The third and final episode was on Gas Safety and members of the public were invited to fill in a quiz form with fun and informative questions about safety issues. Other programmes included roving exhibitions, safety seminars and quizzes, and variety shows on television. Concurrently, EMSD ran a series of road shows at secondary schools throughout Hong Kong to convey the safety messages directly to teenagers.

The 15 organisations that partnered EMSD in the 2001 E&M Safety Campaign were: the Airport Authority Hong Kong, Caltex Oil Hong Kong Limited, China Resources Gas Co., Ltd., CLP Power Hong Kong Limited, Esso Hong Kong Limited, the Hong Kong and China Gas Company Limited, Hong Kong Association of Property Management Companies, the Hongkong Electric Co., Ltd., the Hong Kong Housing Authority, Hong Kong L.P. Gas (Holdings) Ltd., the Kowloon-Canton Railway Corporation, the Lift and Escalator Contractors Association, Mobil Oil Hong Kong Limited, the MTR Corporation, and Shell Hong Kong Limited.



我們以戲劇和互動方式,更有效地向學生傳達安全訊息。 Safety messages can be more effectively conveyed to students using drama and other interactive means.



我們與海洋公園合辦小型演唱會,向家庭及青少年宣傳自動梯 及機動遊戲機安全訊息。

Our joint promotion with Ocean Park on escalators and amusemen rides safety via mini concerts targeting families and teenagers.

海洋公園機電安全嘉年華

為提高市民對機動遊戲機、升降機和自動梯,以及架空纜車方面機械安全的認識,機電工程署聯同海洋公園在2001年9月和10月連續8個星期六晚舉辦宣傳運動,在海洋公園劇場舉行小型音樂會,其中包括一個問答環節,向觀眾發問了一些與安全有關的問題。此外,還向觀眾(以青少年為主)派發了載有安全訊息的獎品和紀念品。

市民安全意識調查

機電工程署定期委託獨立研究公司調查市民在機電安 全和能源效益方面的意識。

過去兩年的調查顯示, 市民大眾的機電安全意識由七 成至九成以上不等, 而公眾教育和宣傳計劃如要取得 最大成效, 應以青少年和家長作為目標。

巡迴展覽

機電工程署的部分工作之一,是不斷提高市民對安全使用電器及裝置、氣體用具、升降機和自動梯以及能源效益重要性的認識,所以於年內在人流眾多的地點舉辦了一系列巡迴展覽。巡迴展覽包括展板和互動式的遊戲,旨在示範如何安全地使用家用電器及氣體用具,以及使用升降機和自動梯的正確方法。此外,又向市民派發了大量有關家居安全訊息的宣傳單張和紀念品。

Safety Carnival at Ocean Park

To encourage public awareness of mechanical safety in the areas of amusement rides, lifts and escalators, and aerial ropeways, EMSD joined Ocean Park in launching a publicity programme that ran for eight consecutive Saturday nights in September and October 2001. The campaign featured a mini-concert at the Ocean Park Theatre which included a Q&A session where safety-related questions were asked. Gifts and souvenirs that spread the safety messages were also distributed to the primarily teenage audience.

Surveys on Public Awareness of Safety

EMSD regularly commissions independent research companies to conduct surveys on public awareness of issues of E&M safety and energy efficiency.

Territory-wide surveys conducted in the past two years have revealed that the general awareness of E&M safety ranged from 70 per cent to well over 90 per cent, and that public education and publicity programmes should target teenagers and parents for maximum impact.

Roving Exhibitions

As part of our continuous effort to promote public awareness of the safe use of electrical appliances and installations, gas appliances, and lifts and escalators, as well as the importance of energy efficiency, EMSD organised a series of roving exhibitions in high-traffic venues throughout the year. The road show featured, among other things, display panels and interactive games designed to demonstrate the safe use of household electrical and gas appliances, and the proper way to use lifts and escalators. In addition, publicity leaflets and souvenirs carrying home safety messages were also distributed to members of the public.













機電工程署 **Electrical and Mechanical Services Department**

香港銅鑼灣加路連山道98號 98 Caroline Hill Road, Causeway Bay, Hong Kong 電話 Telephone:(852) 2882 8011 傳真 Facsimile:(852) 2890 7493 網址 Homepage:http://www.emsd.gov.hk 電郵 E-mail:info@emsd.gov.hk













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