

Electrical & Mechanical Services Department

Corporate Environmental Report Year 2000



*Safety, Health and Environmental Sustainability is
the Key for Quality Excellence*

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[Earth Photo : Courtesy of NASA]

Director's Message

This is the second Corporate Environmental Report of the Electrical and Mechanical Services Department (EMSD). This year, we have decided to put the report on our web-site, and there will be no paper copies.

The major achievements in Year 2000 has been the establishment of environmental management systems for all the units in EMSD, and as a result, we have been awarded the ISO14001 Corporate Certificate. With the environmental management systems in place, we shall be even more self-disciplined to act responsibly in protecting, conserving and improving our environment.

Throughout the journey towards ISO14001 certification, we have widely publicized to all staff our commitment as a good corporate citizen towards improving the environment. We have conducted environment awareness courses for all staff. We have also trained up a number of internal auditors to conduct environmental audits. These exercises have helped to bring about lasting mindset and cultural changes, and a number of environmental management programmes were successfully implemented.

In our role as a government agency, we have helped towards environment improvement in our work on the LPG taxi scheme, and on the promotion of energy efficiency. In Year 2000, through our efforts, the first batch of five dedicated LPG filling stations were commissioned. With these facilities available, many more LPG taxis came on the line. Up to now, over 10,000 taxis are LPG powered, contributing greatly to air quality improvement.

On the energy efficiency front, we have many more models of electrical appliances joining the Energy Efficiency Labelling Scheme. Up to year 2000, we have 854 domestic electrical appliances registered with the Energy Efficiency Labeling Scheme.

In our role as a service provider, we have carried out for our customers several energy efficiency improvement projects, the most significant one is in the Queen Elizabeth Hospital where we helped our client to replace the conventional boilers with the dual fuel gas fired boilers to increase energy efficiency and reduce air pollution. Such energy efficiency programmes not only helped improving the environment but also brought about economic benefits for our customer.

Looking ahead, we shall continue our attention and efforts in environmental improvements . In addition, this year, we will also establish and implement management systems for occupational health and safety, and we aim to achieve the corporate certification for OHSAS18001 in Year 2001.

Roger S. H. Lai
Director of Electrical and Mechanical Services

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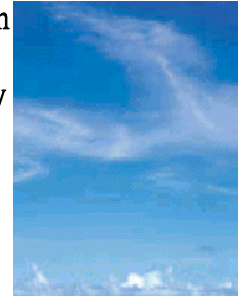
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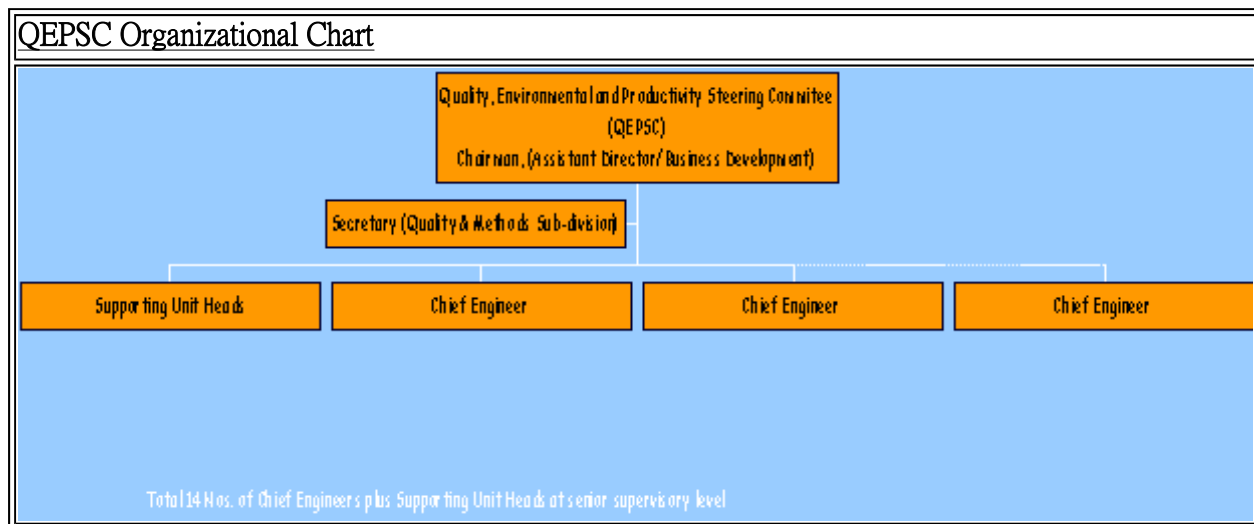
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Environmental Organization Hierarchy

The Quality, Environmental and Productivity Steering Committee QEPSC headed by an Assistant Director was established since 1996 and charged with the responsibility to ensure all quality, environmental, safety and productivity related policies are effectively implemented within EMSD (see organizational chart). Members of the committee are the Chief Engineers (heads) of the strategic business units as well as the heads of the supporting units.



The QEPSC receives broad term directive and organizational goals from the Director and Senior Management of the Department. It maps out detail steps and initiatives towards achieving these goals. Through reviews and consensus, environmental and safety management programmes, internal integrated audits coordination, environmental and occupational health and safety (OHS) awareness promotion, etc. are worked out. The Chief Engineers and Unit Heads would then execute these agreed activities.



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Environmental Goal and Policy Objectives

In 2000, we have formally established our corporate goal and policy objectives towards the environment. This is after in-depth discussion within Senior Management.



Our Goal

The management and staff of the Electrical and Mechanical Services Department are committed to building a better environment through an ongoing environmental conservation, protection and improvement programme.

Our environmental goal is fulfilled by adhering to the policies below:

Our Policy



1. To take pride in ourselves as a responsible organization that is helping to build a better environment.
2. To take every reasonable and practicable measure to conserve resources, minimise the generation of waste and prevent pollution in each and everyone of our business operation processes.
3. To comply with green legislation as the baseline of our operations and to ensure that all staff behave accordingly.
4. To encourage our contractors and their staff to be equally friendly to the environment.
5. To ensure that our environmental management system conforms to internationally recognized ISO14001 standards.

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Environmental Management Systems

In the 1999 Environmental Report, we have started our plan to develop and establish Environmental Management System, aiming for ISO14001 certification in Year 2000. We are pleased to report that Environmental Management Systems were established in 13 business units. These systems were individually audited by HKQAA and were awarded with ISO14001 certificates. Based on these aggregate results, the Department was awarded an ISO14001 Corporate Certificate in October 2000. Details of the certificates received are shown in



[Appendix A](#)

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Communications to Stakeholders

Staff Awareness

As part of the drive for establishing environmental management systems, we have organized environmental awareness and environmental management training courses for our staff. Over 3,000 man-days had been invested in providing environmental training to raise their environmental consciousness as well as inducing skill and knowledge to implement environmental management system in their Units.



In addition, we have included environmental related trainings as part of the EMSD training plan to ensure the knowledge of our staff is regularly refreshed to keep up with the changing environment.

Our Stakeholders and the Public

We have prepared and issued Green Procurement Guidance Notes to our suppliers and contractors to oblige them to comply with our environmental policy when delivering services to us. We have also prepared a number of pamphlets to promulgate the Energy Efficiency Labelling Scheme (EELS) to raise public awareness on the energy efficiency of domestic and office type electrical appliances. Details of such pamphlets are available from EMSD web-site.

[Communication pamphlets](#)

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Audit Mechanism

We have trained up a pool of seventy-eight (78) environmental management system auditors to conduct internal audits for our environmental management systems and to monitor the system effectiveness on a regular basis.

Apart from internal environmental audits, each of the environmental management systems will be externally audited by the certification body every six months to ensure its compliance to ISO14001 standard to better assure our stakeholders of our commitment towards environmental protection.

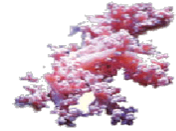


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Environmental Management Programme

The environmental management programmes (EMP) initiated by EMSD encompassing the areas of environmental protection, conservation and improvement are summarized below:

Protecting the Environment:



<i>EMSD's Role</i>	<i>Significant Aspect</i>	<i>Objectives</i>	<i>Target</i>
Corporate Citizen	Chemical(s) containment	Contain all waste oil and non-dangerous chemicals within storage sites	Provide above ground oil s containment tanks & perso equipment
Corporate Citizen	Effluent discharge control	Treat the effluent prior to discharge to public drainage	All effluent is properly treat discharging to public drain
Corporate Citizen	Volatile organic compound control on paint spray process	Reduce fugitive volatile organic compound emission from paint booth	Retrofit volatile organic co system in spray booth

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Conserving the Environment



<i>EMSD's Role</i>	<i>Significant Aspect</i>	<i>Objectives</i>	<i>Target</i>
Corporate Citizen	Resources Reduction and wastes recycling	Enhancing green office practices and promoting recycling concept throughout EMSD	Reduce the use of electric paper and envelope. Recycle used dry battery paper, scrap metal and traffic bollards.
Corporate Citizen	Use of environmental friendly product	Promoting the use of environmental friendly stationery and recycled paper	Increase the use of environmental stationery and recycled paper against 1999 data.
Service Provider	Use of high efficiency electronic ballast	Promoting the use of high efficiency ballast to save energy	New projects handled by
Service Provider	Air emissions reduction and resources conservation	Converting 4 diesel steam boilers to 3 dual fired boilers in Queen Elizabeth Hospital	Reduce boiler stacks air pollution, conserve resources with high efficiency boilers
Government Agency	Efficient use of electricity	Promote Energy Efficiency Labelling Scheme (EELS)	1. Widen the coverage of public informed of the efficient electrical appliances in Hong Kong 2. Extend the coverage of energy efficient equipment, such as air conditioning units, etc.

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Notes : * 1 TJ is equal to 10^{12} J.

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Improving the Environment

<i>EMSD's Role</i>	<i>Significant Aspect</i>	<i>Objectives</i>	<i>Target</i>
Corporate Citizen	Environmental performance of suppliers, contractors & consultants	Inclusion of requirements into tender document	Implement the standard conditions of contract for 1
Service Provider	Emission from diesel vehicles	Ensure emission compliance for diesel vehicles under our maintenance	Conduct comprehensive service for diesel vehicles after annual maintenance
Service Provider	Indoor air quality	Improve air quality in client premises	Enhance air quality to meet requirements
Government Agency	Indoor air quality	Improve indoor air quality for buildings in Hong Kong	Technical advisory support Environment and Food Bureau air quality monitoring methodology
Government Agency	Emission from vehicles	Support cleaner fuel option for vehicles	Technical advisory support LPG vehicles and LPG filling

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Occupational Health & Safety

While we care for our environment as it affects our health and future well being, we consider it equally important to care for the occupational health and safety of our staff. Building on the success of attaining the ISO14001 certification in Year 2000, we have decided to establish occupational health and safety management systems for our units in Year 2001 and to aim for the OHSAS18001 certification. By that time, with the three management systems ISO9000, ISO14001 and OHSAS18001 all established, we shall then integrate them into one management system to achieve synergy.



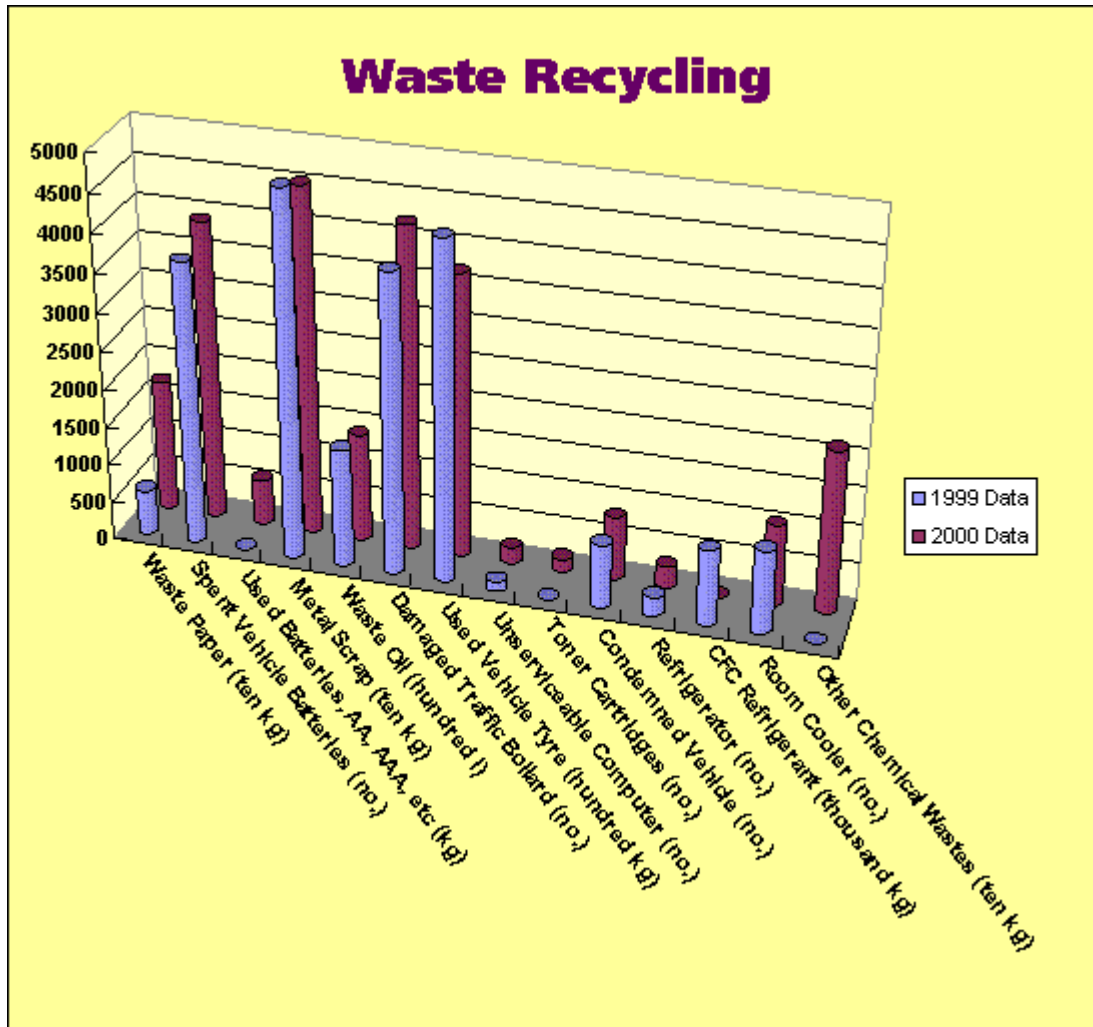
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Appendices – Facts and Data

A. ISO14001 Certificates of EMSD		
Unit/Division/Sub-division	Certification Date	Certificate No.:
Airport Sector Division	Sept., 2000	CC1803
Corporate Services Units	July, 2000	CC1765
General Engineering Services Division/ EMAM	Sept., 2000	CC1827
Health Sector Division/ HESS (1) & (2)	Sept., 2000	CC1823
Health Sector Division/ Medical Procurement	Sept., 2000	CC1804
Health Sector Division/ Medical Maintenance	Sept., 2000	CC1822
Training Sub-division	Oct., 2000	CC1840
Municipal Sector Division	Sept., 2000	CC1820
Project Division	Oct., 2000	CC1839
Supplies Sub-division	Oct., 2000	CC1845
Transport, Security and Central Services Division/ EMAMCS	Oct., 2000	CC1847
Transport, Security and Central Services Division/ Maintenance and Operations	Sept., 2000	CC1826
Vehicle Engineering Division	Sept., 2000	CC1805
Corporate Certificate for EMSTF	Oct., 2000	HC006

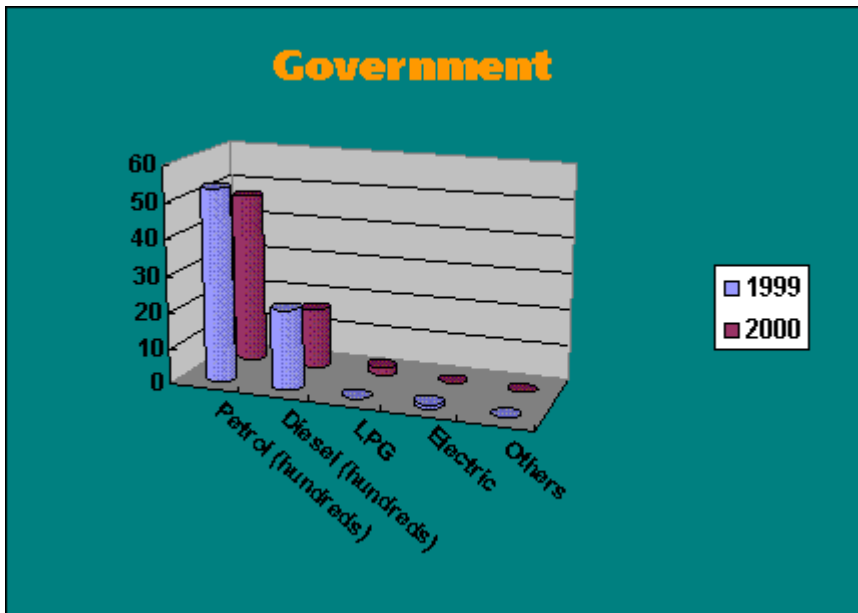
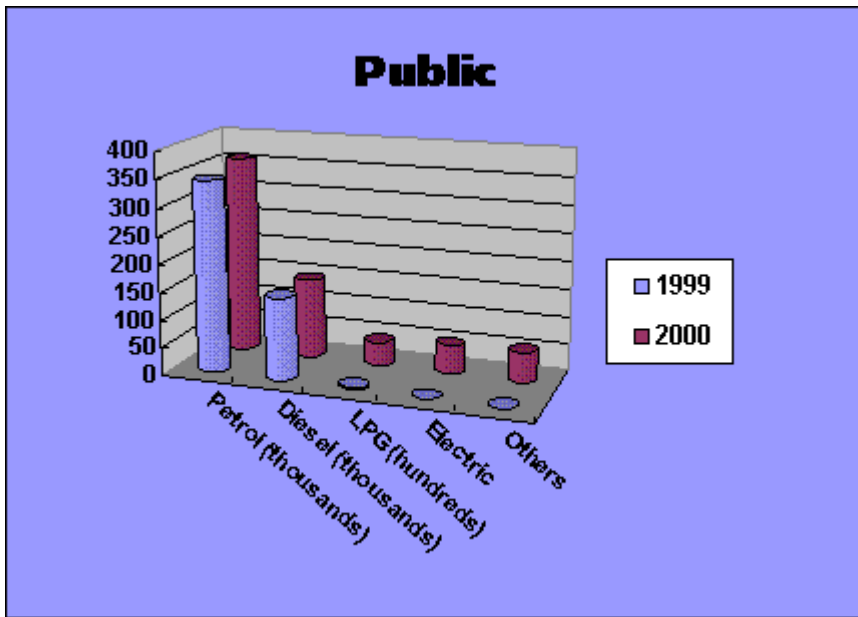
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B. Waste Recycling



[View Data](#)

C. Vehicles by Engine Type

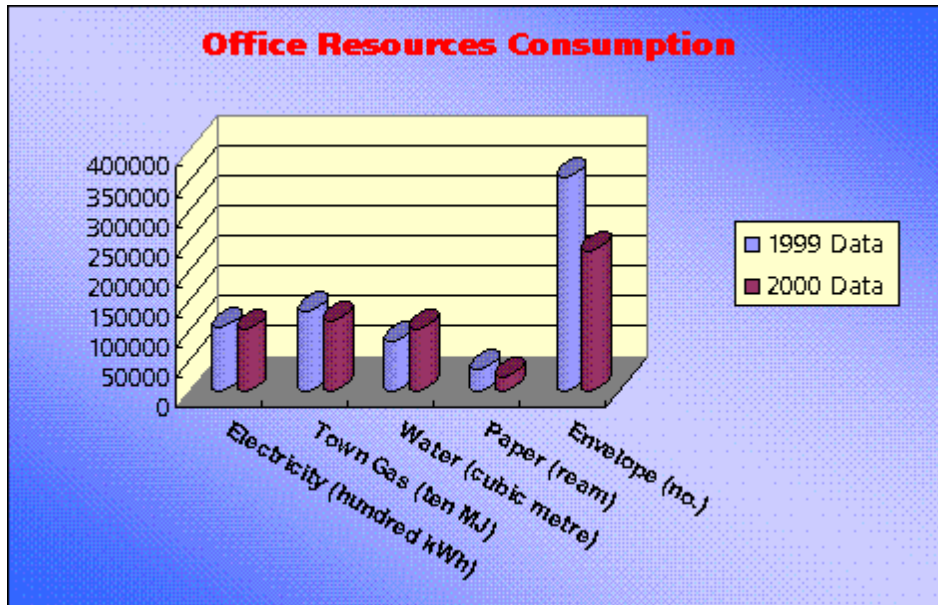


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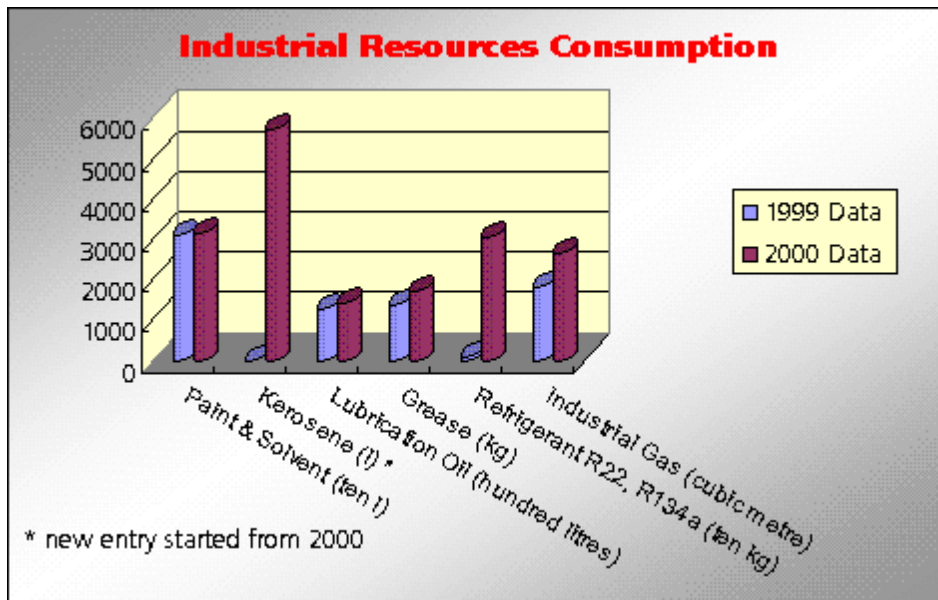
D. Resources Consumption

i. Office Resources Consumption



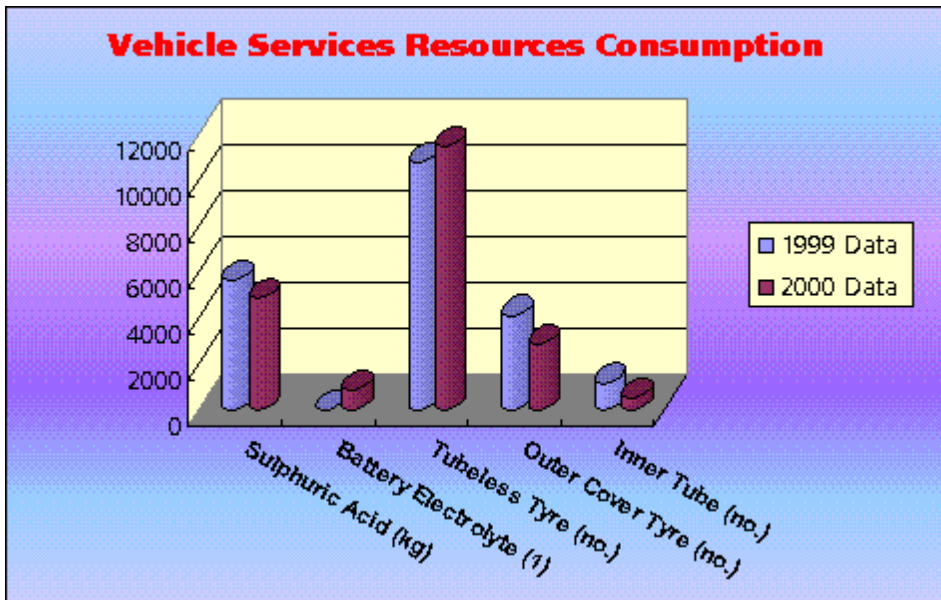
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ii. Industrial Resources Consumption



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iii. Vehicle Services Resources Consumption



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E. Environmental Expenditure & Benefits

Last year EMSD spent HK\$11.56M on capital works and other non-recurrent Provision on environmental protection and control works to transform our policy into action. The associated personal emolument provision for the above had accounted for HK\$6.073M on activities associated with the various initiatives on environmental protection, conservation and waste reduction initiatives (See table below).

Item	Activities/Area of Contributions	Personal Emolument	Capital Works and Other Non-recurrent Provision
		HK\$M	HK\$M
1	Establishment and implementing ISO14001 Environmental Management System	\$5.013	\$1.560
2	Energy efficiency and related projects	\$0.319	\$8.000
3	Air pollution monitoring and control	\$0.498	\$2.000
4	Chemical waste management and disposal	\$0.243	--
	Total: (HK\$M):	\$6.073	\$11.56

Environmental Benefits

We believe that such expenditure would gradually pay off as environmental dividends by raising the environmental awareness of our staff as well as the public in general. Our investment on various feasibility studies and the subsequent recommendation to implement environmental friendly systems and infrastructure would benefit the public in making Hong Kong to become one of the cleanest metropolitan cities in the world.

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F. Independent Verification Statement on Environmental Report

Purpose of the Verification



P-E Handley Walker (HK) Ltd. was commissioned by the Electrical and Mechanical Services Department (EMSD) to perform an independent verification on the report layout, wordings and the accuracy of the data in the context of a public corporate environmental report.

Scope of the Verification

The verification is focussed on coverage of the report and accuracy of the reporting system on environmental performances.

The relevant documents of the key information and data from all Divisions of the EMSD were reviewed and the pertinence of the data to the calendar year 2000 was also verified.

Verification Statement of the Corporate Environmental Report

Our verification results confirm that the data presented is consistent with the materials and the system used to collect, maintain and analyze the data is also effective.

Our verification results also indicate that the EMSD has presented a comprehensive, fair and balanced disclosure of information of their Environmental Performances.

EMSD has made a notable achievement in meeting its objectives and targets in fulfillment of its environmental policy. Based on the information provided, EMSD has so far met all set targets within their specified time frames. For those on-going targets, progress is generally satisfactory.

Particularly noteworthy is the Department's effort in achieving the ISO 14001 Corporate Certificate in October, 2000, implementing the Green Procurement Guidance Notes to suppliers, participating in the Energy Efficiency Campaigns (e.g. Energy Efficiency Labeling Scheme) and other Governmental Environmental Initiatives. (e.g. LPG Vehicle Scheme)

Recommendations for future Reports

During the verification process, we have noticed an increased consumption in industrial resources as evidenced from the year 1999 and 2000 data due to business process requirements. It is suggested that explanation note shall be made for such particular situation.

EMSD is undergoing some consultancy studies on new technologies for conserving energy. It is recommended that such studies can be included in future Environmental Report.

Tommy Lau
Principal Consultant
Compliance Services
P-E Handley Walker (HK) Ltd.

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Feedback Form on EMSD's Corporate Environmental Report 2000

1. Which aspect of the report do you find most useful?

	Yes	No	No comment
Environmental Organization Hierarchy	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Environmental Management Systems	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Communications to Stakeholders	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Audit Mechanism	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Environmental Management Programme	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Occupational Health & Safety	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Facts and Data	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. Which aspect of the report would you like more information?

3. How do you think EMSD could further improve our environmental and OHS performance?

4. Which part of the report do you find most interesting?

	Yes	No	No comment
Environmental Organization Hierarchy	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Environmental Management Systems	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Communications to Stakeholders	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Audit Mechanism	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Environmental Management Programme	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Occupational Health & Safety	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Facts and Data	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

5. Do you find the report informative?

Yes No No comment

6. Do you have any new initiatives on indoor air quality, energy efficiency, renewable energies and the use of electricity or other fuel resources consumption?

Yes No No comment

7. Other comments and suggestions, please specify.

8. How can we convey our feedback to your comments/suggestions?

(Please provide email or contact detail for us to follow up.) - Optional

Submit Form

Reset

Readers without internet e-mail access, please send your hardcopy feedback form to Quality & Methods Sub-division, EMSD. (Attn: Quality and Methods Manager, Fax: 2882 1574)