

# 機電與我

34th Issue December 2021



## From the Editor

Thank you for your continued support, E&M Safety Newsletter has come to its 34th issue with a rich variety of contents to offer, including Tips for Purchase and Storage of LPG Cylinders, Code of Practice for the Electricity (Wiring) Regulations (2020 Edition) fully implemented on 31 December 2021, Energy Saving for All 2021 Campaign – Energy Saving Charter and 4T Charter, Periodic Inspection, Testing and Certification for Fixed Electrical Installations, Enter and Exit with Caution to Ensure Safe Use of Lifts, and Safety Tips for Split Type Air-conditioners. At the beginning of 2022, we wish you all a prosperous New Year!

Periodic Inspection, Testing and Certification for Fixed Electrical Installations



Code of Practice for the Electricity (Wiring) Regulations (2020 Edition) Fully Implemented on 31 December 2021





Safety Tips for Split Type Air-conditioners



Enter and Exit with Caution to Ensure Safe Use of Lifts



Energy Saving for All 2021 Campaign — Energy Saving Charter and 4T Charter







# **Tips for Purchase of LPG Cylinders**

## **Purchase of LPG Cylinders**

Users of LPG cylinders should note that LPG cylinders can only be purchased from LPG cylinder distributors approved by registered gas supply companies. Being supervised by their registered gas supply companies, these distributors can provide users with general advice and support related to LPG safety and works, and provide regular safety inspection services for the gas installations of domestic users to ensure gas safety.

When choosing a distributor, you can also refer to its safety performance rating. Under the LPG Cylinder Distributor Safety Performance Recognition Scheme, distributors' overall performance in various aspects, such as LPG cylinder delivery arrangements, safety inspections of gas appliances, record keeping of customer receipts, employee training and maintaining gas safety operation records, will be assessed and classified as Gold, Silver or Bronze ratings, with Gold being the highest level of safety performance. Members of the public may visit the EMSD website (www.emsd.gov.hk/en/media/lpgcdsprs) or use the EMSD mobile application "E&M Connect" to check the safety performance ratings of distributors.

Besides, the public should pay attention to the number of LPG cylinders stored at home or in shops. Unless approved in accordance with the Gas Safety Ordinance, storing LPG cylinders (including empty cylinders) with an aggregated nominal water capacity of more than 130 litres (approximately 50 kg nominal weight) in a place is an offence.



## How to identify an approved distributor?

Approved distributor may be identified by:

1) the certificate issued by the respective RGSC displayed in the shop;



- 2) checking the register of approved distributors on the EMSD homepage; and
- 3) checking the distributor information on the EMSD mobile application "E&M Connect".





# Code of Practice for the Electricity (Wiring) Regulations (2020 Edition) Fully Implemented on 31 December 2021

Under the existing legislation, electrical work on fixed electrical installations shall be conducted by registered electrical contractors (RECs) and registered electrical workers (REWs) in accordance with the technical and safety requirements stipulated under the Electricity Ordinance (Cap. 406) and its subsidiary regulations, including the Electricity (Wiring) Regulations (E(W)R). The EMSD has formulated the corresponding Code of Practice regarding the E(W)R to provide technical guidelines for RECs and REWs, enabling them to meet the statutory requirements of the E(W)R.

The Code of Practice for the Electricity (Wiring) Regulations (CoP) (2020 Edition) was published on 31 December 2020. After a grace period of one year, the new version of the CoP will apply across the board to fixed electrical installations being completed and connected to electricity supplies on or after 31 December 2021. In addition, the new CoP applies only to the newly installed electrical installations and altered installations, with no retrospective effect on other existing installations.

The 2020 edition of the CoP has been revised to keep abreast of the latest development in technology, safety requirements and trade practices. The major revisions are as follows:

- (1) Introducing the precautions for work inside false ceiling;
- (2) Recommending the installation of Arc fault detection devices (AFDDs);
- (3) Amending the current demand of the final circuits of the current-using lighting equipment;
- (4) Setting out the requirement in relation to Final Circuits Using Universal Serial Bus (USB) Outlets;
- (5) Introducing the technical guideline on Direct Current (DC) System;
- (6) Requiring the use of residual current operated circuit breaker (RCCB) at village premises;
- (7) Revising the technical guideline on Renewable Energy Power System; and
- (8) Introducing the technical guideline on Charging Facilities for Electric Vehicles; and
- (9) Introducing the requirement of Installation for Modular Integrated Construction.

Printed copies of the CoP can be purchased from the Publications Sales Unit of the Information Services Department or ordered by visiting the online Government Bookstore. It can also be downloaded from the EMSD website.

Online Government Bookstore:
<a href="https://www.gov.hk/en/residents/government/publication/">https://www.gov.hk/en/residents/government/publication/</a>

https://www.emsd.gov.hk/en/electricity\_safety/publications/codes\_of\_practice/index.html



# Energy Saving for All 2021 Campaign – Energy Saving Charter and 4T Charter

In response to climate change, the Government is committed to promoting low-carbon transformation in Hong Kong and is proactively taking multi-pronged measures to reduce emissions and conserve energy, with a view to achieving carbon neutrality before 2050. Hong Kong's total electricity consumption is over 44 billion kWh, with our buildings accounting for about 90% of the city's electricity usage and over 60% of the total carbon emissions arising from the electricity production related to energy consumption of buildings. Hence, we are striving to improve energy efficiency in buildings in a bid to reduce carbon emissions. Community involvement is of vital importance to energy conservation. In 2012, the EMSD launched the Energy Saving Charter for the first time, with an aim to fostering closer partnership between the trade and community organisations as well as launching a sector-based campaign to promote energy saving in all sectors in order to combat climate change.

### **Energy Saving Charter**

The Energy Saving Charter scheme initially focused on inviting the building and property management sectors to pledge to reduce electricity consumption on air-conditioning during the summer months by maintaining the indoor temperature at their premises between 24°C and 26°C. Starting from 2016, the scope of the Energy Saving Charter has been expanded to cover more sectors. In 2021, over 2,200 organisations signed up to the Energy Saving Charter, including shopping malls, office/commercial/industrial buildings, residential buildings and housing estates, offices, shops/restaurants, premises of non-governmental organisations or community facilities, kindergartens/primary schools/secondary schools/ post-secondary education institutions, hotels, hospitals and other organisations. They pledged not only to maintain the appropriate indoor temperature at their premises, but also to switch off appliances when not in use and procure energyefficient appliances. Besides, an appreciation certificate will be presented to the organisation that successfully recruits a significant number of shops or offices to sign up to the Charter, with a view to further promoting participation of shops and

offices in the Charter and encouraging building and property management sectors, tenants, occupants and staff to adopt energy saving practices together.

#### **4T Charter**

To operationalise the Paris Agreement, we have developed a streamlined 4T partnership framework, namely target, timeline, transparency and together, in 2017 to enhance the energy efficiency performance of existing buildings. Under the 4T Charter, participating organisations, including such stakeholders as commercial entities or non-profit organisations, are encouraged to set their targets, draw up timelines, ensure transparency on energy saving results, and encourage all sectors to work together on the above energy saving targets.



Leaflet on Energy Saving Charter 2021 and 4T Charter



EMSD (

34th Issue December 2021



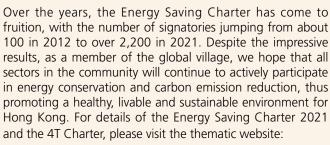
Energy Saving Charter 2021 and 4T Charter Participation Certificate

## **Reasons for Implementing the Charters**

- Conserve energy and combat climate change in a city setting like Hong Kong, where electricity consumption accounts for more than 60% of the greenhouse gas emissions.
- Foster close cooperation among the Government, nongovernmental organisations and business sector for a community-wide campaign to save energy.

## **Benefits of Joining the Charters**

- Promote environmental protection and contribute to the sustainability of the Earth.
- Establish a green and low-carbon image and enhance the profile of the participating organisations in environmental protection and sustainable development.
- Set a role model for fulfilling corporate social responsibility.
- Reduce electricity consumption and expenditure.



https://www.energysaving.gov.hk/esc2021/en/charter/index.html



Group photo at the launching ceremony of Energy Saving Charter 2019 & 4T Charter

Video on Energy Saving for All – Energy Saving Charter http://youtu.be/XrxvVSQ\_kW4





# Periodic Inspection, Testing and Certification for Fixed Electrical Installations

Pursuant to the Electricity (Wiring) Regulations, owners of low voltage fixed electrical installations (including individual unit owners and owners' corporations) in a premises with an approved loading exceeding 100A are required to have the installations inspected, tested and certified with Periodic Test Certificate (i.e. Form WR2) by a registered electrical contractor at least once every 5 years. If there are renewable energy (RE) generating facilities connected to and formed part of the fixed electrical installations, owners of the installations shall also arrange periodic inspection, testing and certification (PITC) for the RE generating facilities. Before carrying out the PITC work, owners of the installations shall discuss and reach a consensus with the Registered Electrical Contractor (REC) and the management company on the power suspension arrangements and the corresponding provisional measures that meet the operational needs of the premises, so as to ensure the safety of the Registered Electrical Workers (REWs) and minimise the impact of the PITC work on premises users.

Apart from the PITC work mentioned above, all electrical installations should be properly and regularly maintained for prevention of electrical accidents and maintenance of reliable power supply. To enhance public understanding of the PITC work for fixed electrical installations, a series of related briefing

materials and updated information have been uploaded to the following webpage:

http://www.emsd.gov.hk/en/electricity\_safety/periodic\_test\_for\_fixed\_electrical\_installations/index.html

Owners of the installations may also browse the following EMSD webpage to find a suitable REC to carry out electrical works:

http://www.emsd.gov.hk/en/electricity\_safety/registers/registered\_electrical\_contractors/index.html

There are also other Government departments that provide assistance in various aspects to facilitate owners of fixed electrical installation to arrange and complete the PITC work. The Home Affairs Department (HAD) assists unit owners in setting up owners' corporation. For details, please visit the webpage of the HAD:

http://www.had.gov.hk (Public Services > Building
Management)

The Urban Renewal Authority (URA) provides financial support to owners through the Integrated Building Rehabilitation Assistance Scheme. For details, please visit the Building Rehabilitation Platform under the URA:

http://brplatform.org.hk/en

# **Safety Tips for Split Type Air-conditioners**

The Electrical Products (Safety) Regulation stipulates that household electrical products supplied in Hong Kong, including split type air-conditioners, should be issued with certificate of safety compliance to ensure that the products are in compliance with relevant international safety standards or other equivalent safety standards. When buying and using split type air-conditioners, members of the public should pay attention to the following:

- If the power is supplied from a fixed electrical circuit, the connection work must be carried out by a registered electrical contractor
- To avoid damage to the parts, do not switch on the airconditioner immediately after switching it off
- Switch off the power supply of the air-conditioner when the room is not in use



- Use the air-conditioner according to the user manual to ensure electrical safety
- Arrange regular maintenance for the air-conditioner.
   Switch off the power supply before cleaning the air-conditioner and its air filter.

Domestic air-conditioners using mildly flammable refrigerants (e.g. R32 refrigerant) should be labelled with a "flammable" symbol for identification. When purchasing such products, pay particular attention to the restrictions on use as specified by the manufacturers. Installation, inspection or maintenance of the products should be carried out in compliance with the requirements by the agents, suppliers or technicians who have experience in handling relevant mildly flammable refrigerants



 If any abnormalities (e.g. excessive noise or vibration, or abnormal smell) are detected, stop using the airconditioner immediately and arrange for inspection and maintenance by agents, suppliers or technicians with relevant experience



## **Enter and Exit with Caution to Ensure Safe Use of Lifts**

To ensure the safety of lifts, proper maintenance and regular inspection are very important, and at the same time, correct use of lifts by passengers should not be overlooked. Last year, the EMSD received a total of 238 reports on lift-related incidents. Incidents caused by passenger behaviors accounted for as high as 95%, and some of them occurred when passengers entered or exited the lifts. How should passengers ensure their safety when entering and exiting lifts? We will analyse the risks one by one below.



Difference in height between the lift car and the ground

Due to the design limitations of some lifts, even with proper maintenance and inspection, there will still be a slight difference in height between the lift car and the ground when the lifts arrive at the floors. When this happens, if a passenger is not careful enough to be aware of the difference in height between the lift car and the landing ground, he/she may trip while entering and exiting the lift, and an accident may occur.

Besides, the design of some lifts allows the opening of lift doors before the lift cars come to a complete halt, so that passengers can enter and exit as soon as the lift cars stop. However, if a passenger enters or exits hastily without waiting for a lift to stop, he/she may fall due to imbalance as there is still a considerable difference in height between the lift car and the ground, and the lift car is still moving.

Finally, with heavy flow of people during peak hours and limited space in some buildings, if passengers rush in and out of the lifts, they will not only increase the load of the lifts, but also bump against each other, thus causing unnecessary disputes or even accidents.

In conclusion, when using a lift, passengers should wait for the lift car to stop and pay attention to the difference in height between the lift car and the landing ground before entering or exiting the lift. Passengers should also observe order and let the passengers in the lift exit before entering it. If any abnormality is found in the lift, the responsible persons for the lift (e.g. the building caretaker, property management company) should be notified immediately, and they should contact the lift contractor for follow-up.

To further promote safe use of lifts, the EMSD launched a new series of TV and radio Announcements in the Public Interest (APIs) as well as stickers in April 2021, reminding passengers about the safety tips for using lifts, including paying attention when entering and exiting lifts. The EMSD's new mascots "Witty Bear" (left) and "KnowBot" (right) will also appear in the APIs and stickers. The TV APIs are available for viewing on the EMSD YouTube channel.

https://www.youtube.com/watch?v=DmgQl540f\_w













#### E & M Safety Quiz

Please fill in the reply slip below with the most appropriate answer for each question and send it by post or by fax to the Editor, E&M Safety Newsletter (contact information is shown at the bottom of this page). The first 500¹ of the quiz participants answering

all questions correctly will receive a souvenir (on a first-come-first-served basis).

Q1: Pursuant to the Gas Safety Ordinance, what is the maximum aggregated nominal water capacity of LPG cylinders permitted to be stored if no specific approval is obtained?

A. 70 litres B. 100 litres C. 130 litres D. 250 litres

- Q2: Which of the following is included in the Code of Practice for the Electricity (Wiring) Regulations (2020 Edition)?
  - A. Adding the precautions for work inside false ceiling
  - B. Recommending the installation of Arc fault detection devices
  - C. Requiring the use of residual current operated circuit breaker at village premises
  - D. All of the above
- Q3: In which year did the Electrical and Mechanical Services Department first introduce the Energy Saving Charter?

A. 2010 B. 2011 C. 2012 D. 2013

- Q4: Which of the following is not considered as safe use of lifts?
  - A. Take care of accompanied children
  - B. Give undivided attention to mobile phones
  - C. Stay clear of the lift door
  - D. If any abnormality is found in the lift, notify the responsible persons for the lift immediately

REPLY SLIP <sup>2</sup>			
Name:	Tel.:		
Hong Kong Address:			
Answers:			
Q1	Q2	Q3	Q4

Answers to last issue's quiz: 1. D 2. C 3. D 4. D

# **Feedback**

Both the English and Chinese versions of this *E&M Safety Newsletter* are available on our web page at <a href="www.emsd.gov.hk">www.emsd.gov.hk</a>. Your enquiries and comments are most welcome. Please write to:

The Editor, E&M Safety Newsletter Electrical and Mechanical Services Department 3 Kai Shing Street, Kowloon 歡迎讀者就版面或內容提出寶貴意見及建議,使我們能作出改善,務求為大家提供更多有用和有趣的資料。如欲提出意見或查詢,請與我們聯絡。《機電與我》中文及英文版均可於我們的網頁(www.emsd.gov.hk)內瀏覽。

機電工程署《機電與我》編輯 九龍啟成街 3 號

電話 Tel: 1823 (電話中心 Call Centre)

傳真 Fax: 2576 5945

電郵 E-mail: info@emsd.gov.hk







Only the first 500 of the quiz participants sending in the Reply Slip with all answers correct will be notified.

<sup>&</sup>lt;sup>2</sup> The personal data provided in the Reply Slip will only be used for the E & M Safety Quiz purpose. It will be kept confidential and will not be disclosed to any third party. You have the right to request in writing to check whether EMSD is keeping your personal data, to access or correct it, and to enquire about our poicy and procedures in the use of such data as well as the types of personal data we are keeping. The above terms do not affect your rights as set out in the Personal Data (Privacy) Ordinance.