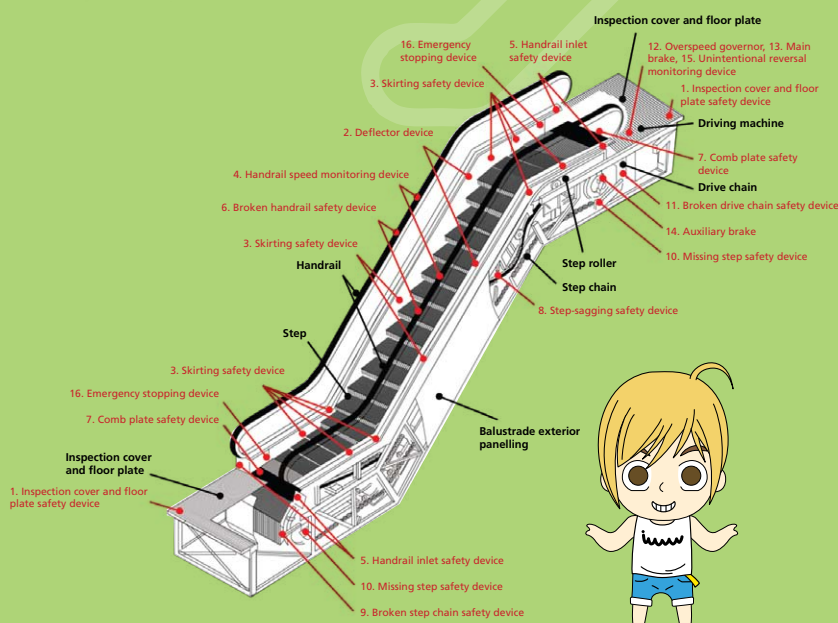


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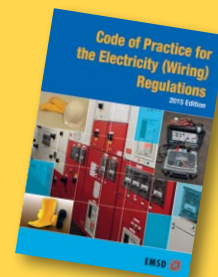
Points to Note on Revalidation of LPG Fuel Tanks



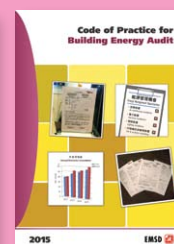
Escalator Safety Devices



Code of Practice for the Electricity (Wiring) Regulations (2015 Edition) Published



Code of Practice for Energy Efficiency of Building Services Installation and Code of Practice for Building Energy Audit New Editions Gazetted on 11 December 2015



From the Editor

Hello everyone. Thanks for your continued support, this issue of E&M Safety Newsletter is the 25th since its launch. In this issue, we shall share with you some electrical and mechanical safety knowledge such as points to note on revalidation of liquefied petroleum gas (LPG) fuel tanks and information on escalator safety devices, as well as safety tips for adapters. We shall also introduce you to the 2015 editions of the Code of Practice for the Electricity (Wiring) Regulations, the Code of Practice for Energy Efficiency of Building Services Installation and the Code of Practice for Building Energy Audit. With the summer vacation just around the corner, we wish you a safe and joyous holiday.

Points to Note on Revalidation of LPG Fuel Tanks

1. Statutory Requirements

All LPG vehicles are equipped with an LPG fuel tank, which is a pressure vessel. According to the Gas Safety Ordinance, the owner of a cylinder shall not use the cylinder to contain LPG unless the cylinder has been tested and examined not less than once in the five years period immediately preceding such use.

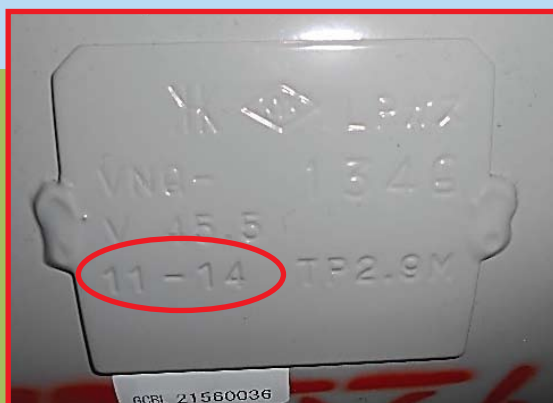
Any owner of an LPG fuel tank (i.e. LPG vehicle owner) who contravenes the above requirements commits an offence and is liable on conviction to a fine of \$10,000 and, in the case of a continuing offence, to a daily penalty of \$1,000. The vehicle owner shall also take note of insurance coverage related to the contravention of the above requirements.

2. Requirements on Workshops and Competent Person

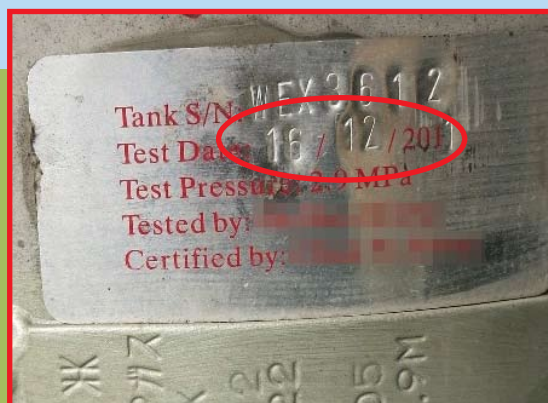
As the five-yearly revalidation of LPG fuel tanks involves the structure and both the internal and external components



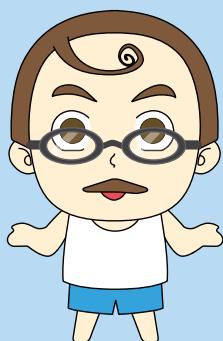
of LPG fuel tanks, such work must be carried out by a Competent Person (Class 1) or under his supervision at an LPG Fuel Tank Workshop. No vehicle maintenance workshops are allowed to carry out any work relating to the revalidation of LPG fuel tanks.



Example 1: If "11-14" is marked on the LPG fuel tank, that means the manufacture date is November 2014.



Example 2: If a label carrying information about the revalidation is affixed on the LPG fuel tank and is marked with "16/12/2011", that means the last revalidation date is 16 December 2011.



Red identification signage



Blue identification signage

LPG vehicle owners, drivers or relevant individuals may arrange for the revalidation and installation of a revalidated LPG fuel tank at vehicle maintenance workshops (those employing Competent Persons (Class 6) and equipped with special equipment) suitable for the maintenance of LPG fuel systems within five years from the last test date.

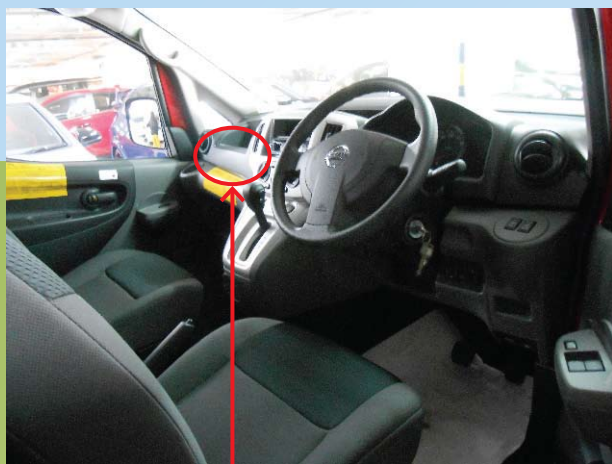
To make it easier for LPG vehicle owners, drivers and the public to identify the vehicle maintenance workshops that provide maintenance services for LPG fuel systems, and to recognise and enhance the gas safety standard of the trade, the Electrical and Mechanical Services Department (EMSD) launched the Identification Signage Scheme for LPG Vehicle Fuel System Maintenance Workshops in August 2015. This new administrative measure aims at encouraging this type of workshops to submit relevant information to EMSD. Upon verification of the information and completion of gas safety inspections, an identification signage will be issued to the workshops accordingly. Workshops displaying a red identification signage are permitted to store an aggregated nominal water capacity of more than 130 litres of LPG (i.e. storing more than one LPG fuel tank), whereas workshops with a blue identification signage are not permitted to store more than 130 litres of LPG. Owners and drivers are also advised to opt for workshops with the identification signage.

3. How to Check When an LPG Fuel Tank Shall Be Revalidated?

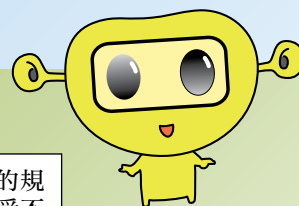
- (i) Examine the last test date or the manufacture date marked on the LPG fuel tank.
- (ii) The LPG fuel tank shall be revalidated within five years of this date.
- (iii) Example 1: Brand new LPG fuel tank – If “11/14” is marked on the LPG fuel tank, that means the manufacture date is November 2014, and so the LPG fuel tank shall be revalidated in or before October 2019 (see the illustration on the previous page).
- (iv) Example 2: Revalidated LPG fuel tank – If a label carrying information about the revalidation is affixed on the LPG fuel tank and is marked with “16/12/2011”, that means the last revalidation date is 16 December 2011, and so the LPG fuel tank shall be revalidated again on or before 16 December 2016 (see the illustration on the previous page).
- (v) Vehicle owners should note that the test date of the LPG fuel tank should be based on the date marked on the tank, not the vehicle ex-factory date, licensing date or examination date.

4. LPG Fuel Tank Revalidation Information Label

Since 2016, EMSD has produced LPG fuel tank revalidation information labels and encouraged LPG vehicle owners, drivers or relevant individuals to have one affixed inside their vehicle compartment, such as at a position facing the front passenger seat in a taxi (see the picture on the bottom left corner), or a position next to the driver's dashboard in a minibus, in order to remind them of the deadline for LPG fuel tank revalidation.



The recommended position on which to affix the label inside a taxi compartment



根據《氣體安全條例》(第51章)的規定，石油氣燃料缸必須在五年內，接受不少於一次的試驗及檢驗。此車的燃料缸必須在以下日期前進行試驗及檢驗：

年 月 日 機電工程署 EMSD

Label sample

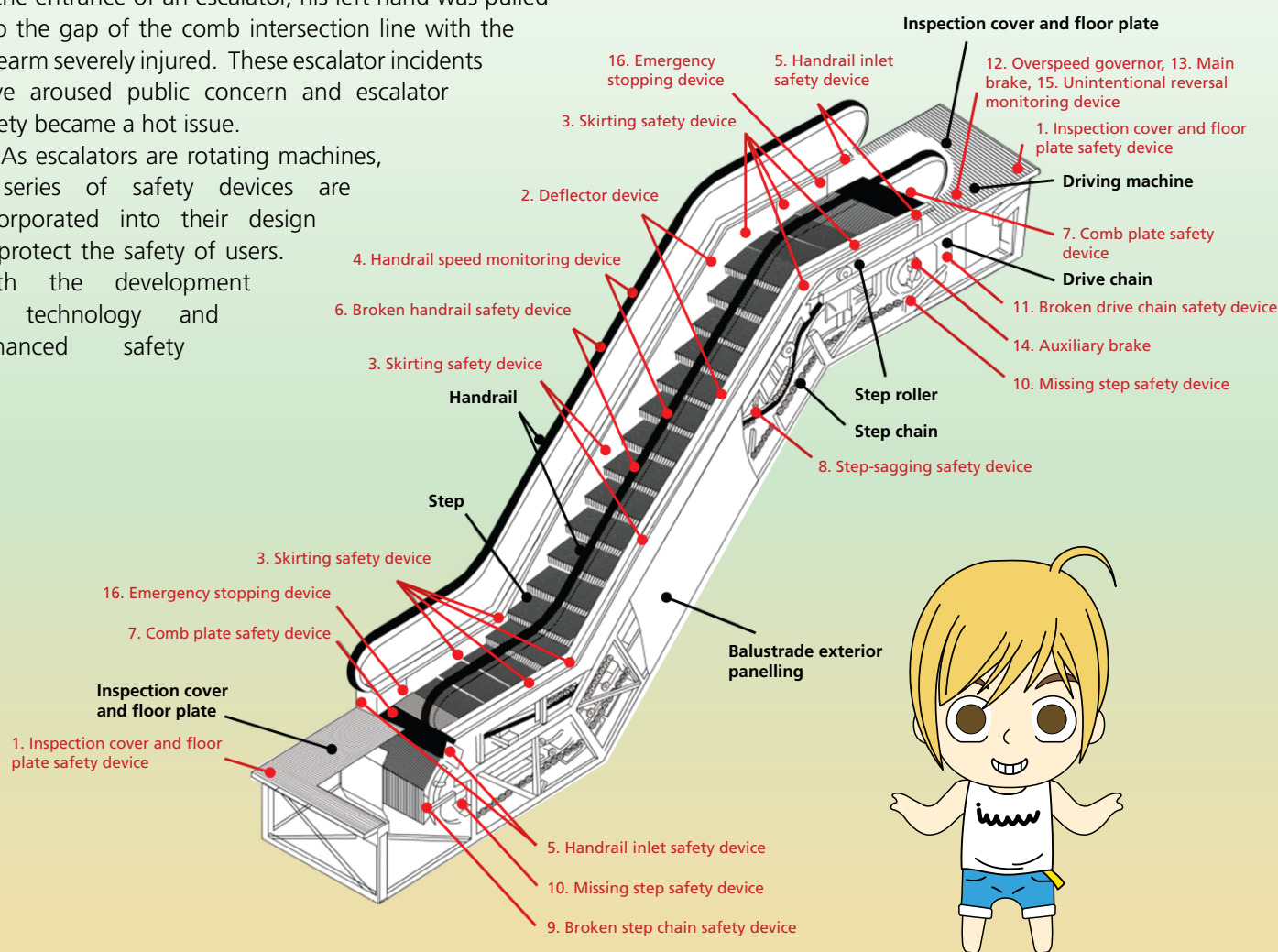


Escalator Safety Devices

Last year, the media reported various types of escalator incidents one after another in the Mainland. For example, on 26 July last year in Jingzhou, Hubei, the floor plate of an escalator suddenly collapsed after a thirty-year-old woman stepped on it. As a result, the woman was dragged into the machinery spaces of the escalator and unfortunately lost her life. On 27 July last year in Wuzhou, Guangxi, while a one-year-old child was picking up a ball at the entrance of an escalator, his left hand was pulled into the gap of the comb intersection line with the forearm severely injured. These escalator incidents have aroused public concern and escalator safety became a hot issue.

As escalators are rotating machines, a series of safety devices are incorporated into their design to protect the safety of users. With the development of technology and enhanced safety

requirements, continuous improvements are also made to these safety devices. The design of escalators in Hong Kong must meet the requirements in the Code of Practice on the Design and Construction of Lifts and Escalators drawn up by EMSD. According to the existing Code of Practice, escalators must have a firm structure and be equipped with the following main safety devices:



1. Inspection cover and floor plate safety device

Inspection covers and floor plates leading towards escalator treadways are provided with safety devices which will stop the escalator when these covers are opened.

2. Deflector device

The deflector device normally in the form of brush bristles is suitably placed on the skirting to reduce the possibility of foreign objects being trapped between the skirting and steps, and to guard passengers' feet.

3. Skirting safety device

In case of foreign objects being trapped between the skirting and steps, the skirting safety device will stop the escalator.

4. Handrail speed monitoring device

The handrail speed monitoring device will stop the escalator in the event of a handrail speed deviation exceeding a certain range.

<p>5. Handrail inlet safety device In case of foreign objects being trapped at the handrail inlet, the handrail inlet safety device will stop the escalator.</p>	<p>6. Broken handrail safety device If a broken handrail is detected, the broken handrail safety device will stop the escalator.</p>
<p>7. Comb plate safety device In case of foreign objects being trapped at the point where the steps enter the comb, the comb plate safety device will stop the escalator.</p>	<p>8. Step-sagging safety device In case of sagging of any part of the steps so that the meshing of the comb is no longer ensured at the point at which the steps enter the landing, the step-sagging safety device will stop the escalator.</p>
<p>9. Broken step chain safety device If breakage or undue elongation of the step chains is detected, the broken step chain safety device will stop the escalator.</p>	<p>10. Missing step safety device The missing step safety device is installed at each driving and return station of the escalator. If there are any steps missing, the device will stop the escalator.</p>
<p>11. Broken drive chain safety device If breakage or undue elongation of the drive chains is detected, the broken drive chain safety device will stop the escalator.</p>	<p>12. Overspeed governor If the operating speed of the escalator exceeds a certain threshold, the overspeed governor will be actuated to cut off the power supply, thus stopping the escalator.</p>
<p>13. Main brake In case of incidents such as trapping of foreign objects at the point where the steps enter the comb or in the gap between the skirting and the steps, the main brake will be actuated to stop the escalator.</p>	<p>14. Auxiliary brake In addition to the main brake, the auxiliary brake will assist in stopping the escalator in case of overspeeding, reversal travelling, failure of the main brake and power failure.</p>
<p>15. Unintentional reversal monitoring device When the steps suddenly deviate from the preset direction of travel, the unintentional reversal monitoring device will stop the escalator.</p>	<p>16. Emergency stopping device The emergency stopping device is usually installed at the entrance and exit of the escalator, or in other conspicuous and easily accessible positions at or near the landings of the escalator. The escalator can be stopped by pressing the device button in case of emergency.</p>

All escalators in Hong Kong are equipped with various safety devices. With proper management by their responsible persons, periodic maintenance and examination properly carried out by registered escalator contractors and engineers, compliance with safety rules by escalator passengers, and a comprehensive escalator safety regulatory system, escalators in Hong Kong are safe for use and everyone can feel at ease in using them. To enable the general public to have a better understanding of escalator safety devices, EMSD has produced a video and uploaded it to its web page and YouTube at the following links:



EMSD Web Page:

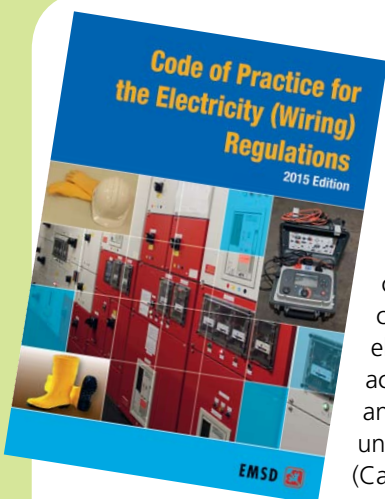
http://www.emsd.gov.hk/filemanager/video/en/upload/45/Escalator_Safety_Devices_en720.mp4



EMSD YouTube:

<https://www.youtube.com/watch?v=QUFsZsuNAOI?>





Code of Practice for the Electricity (Wiring) Regulations (2015 Edition) Published

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). In

order to provide technical guidelines for RECs and REWs so that they understand how to meet the statutory requirements of the E(W)R, EMSD has formulated the corresponding Code of Practice regarding the E(W)R.

The latest edition (i.e. 2015 Edition) of the Code of Practice was published on 31 December 2015. The amendments in the new edition were made in response to latest developments in technology, safety requirements and trade practices, and mainly include the following:

- (1) Extension of coverage to include the safety precautions for high voltage installations;
- (2) Requirements concerning the use of lockable circuit

breaker;

- (3) Replacement of the Risk Assessment Report on Live Work by the Electrical Safety Assessment Form;
- (4) Simplification of the permit-to-work system and introduction of the Sanction-for-Test;
- (5) Refinement of the diagrams used in Code 21;
- (6) Power suspension arrangement for periodic inspection, testing and certification (PITC) work on main switchboard connecting to the power companies' transformers;
- (7) Technical guidelines related to electric heating systems installed in building structures; and
- (8) Charging facilities for electric vehicles.

Members of the public can now purchase a copy of the latest edition of the Code of Practice at the Publications Sales Unit of the Information Services Department, or the online Government Bookstore at the GovHK website. Copies may also be downloaded from the EMSD website.

The website of the online Government Bookstore:

<http://www.gov.hk/en/residents/government/publication/publication/bookstore.htm>

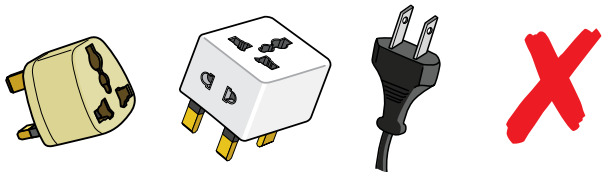
The EMSD website:

http://www.emsd.gov.hk/en/electricity_safety/publications/codes_of_practice/index.html

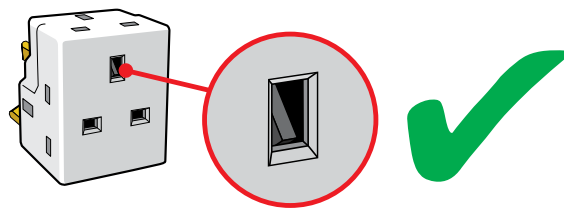
Safety Tips for Adapters

The Electrical Products (Safety) Regulation stipulates that household electrical products sold in Hong Kong, including adapters, shall be issued with "certificates of safety compliance" as proof that the products comply with the relevant international safety standards or other equivalent safety standards. Members of the public should take heed of the following when buying and using adapters:

- (1) Buy and use adapters that comply with safety requirements (i.e. BS1363 or BS546).
- (2) Only buy and use adapters with safety shutters.
- (3) Do not buy or use any adapters with irregular holes.



- (4) To prevent power circuit overload which may result in fire hazards, no more than one adapter or extension unit should be inserted into a socket outlet. No adapter should be inserted into an extension unit and vice versa.
- (5) Use the adapter at a place safe from collision to prevent



it from being hit by other objects and thus getting damaged.

- (6) Do not insert a two-pin plug into an adapter by force.
- (7) Stop using the adapter if its pins cannot be securely inserted into the socket outlet.
- (8) Do not use the adapter in a humid environment or a place near water, such as in the bathroom.
- (9) When using an adapter, keep it away from any combustible objects. Ensure that there is sufficient ventilation space around the adapter for heat dissipation.

Travel adapters, which are designed for use outside Hong Kong, are mainly used for connecting plugs of portable hand-held electrical appliances to socket outlets at locations outside Hong Kong. These adapters are not regulated by the Electrical Products (Safety) Regulation. As such, extra care should be taken when buying any such adapter and using it outside Hong Kong. If any safety problem is suspected, stop using the adapter immediately and contact the supplier or an experienced technician to carry out inspection as a precautionary measure.

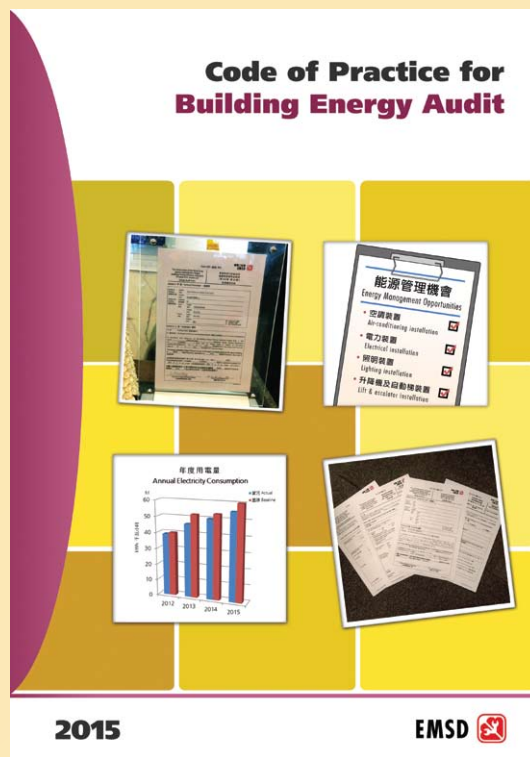
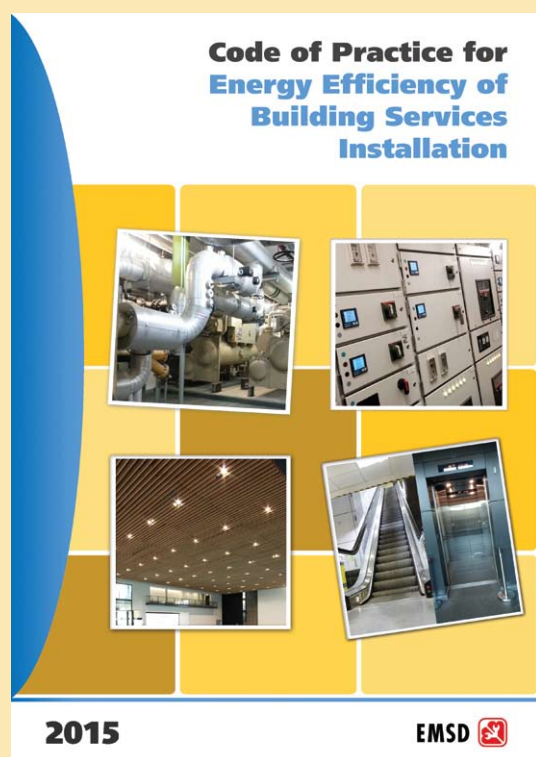
For enquiries about electrical product safety, please call 1823 Citizen's Easy Link or e-mail to info@emsd.gov.hk.

Code of Practice for Energy Efficiency of Building Services Installation

and

Code of Practice for Building Energy Audit

New Editions Gazetted on 11 December 2015



On 11 December 2015, EMSD gazetted the 2015 editions of the Code of Practice for Energy Efficiency of Building Services Installation and Code of Practice for Building Energy Audit in pursuance of section 40 of the Buildings Energy Efficiency Ordinance, further enhancing buildings' energy efficiency and reducing greenhouse gas emissions.

More stringent than the 2012 versions, the new standards require a further 10% improvement in energy efficiency. We expect that up to 2025, energy savings from all newly constructed buildings in Hong Kong as a result of the Ordinance will be about five billion kilowatt hours, equivalent to the total annual electricity consumption by about one million households or a reduction in carbon dioxide emissions of about 3.5 million tonnes.

The Code of Practice for Energy Efficiency of Building Services Installation specifies the energy efficiency standards and requirements for the four key types of building services installations as prescribed under the Ordinance, namely air-conditioning, electrical, lighting, and lift and escalator installations. The Code of Practice for Building Energy Audit sets out the technical requirements and details in respect of the energy audit under the Ordinance. In addition, the central building services installations of commercial buildings and the commercial portions of composite buildings are required to carry out energy audits every ten years in accordance with the Code of Practice for Building Energy Audit, and the results have to be displayed in a conspicuous position at the main entrance of the buildings concerned for public inspection.

The Codes of Practice were drawn up by EMSD in collaboration with major stakeholders including professional institutions, trade associations, green groups, academia and government departments. They are meant to provide technical details for the Buildings Energy Efficiency Ordinance, which was implemented in 2012. The Codes are comprehensively reviewed once every three years. During the review process, EMSD examined the latest technology developments and referred to the energy efficiency standards adopted by the relevant professional bodies and authorities in the United States, Europe and the Asia-Pacific region. Feedback and suggestions from the relevant trades were also taken into account.

Grace periods of six to nine months will be provided after the issuance of the latest 2015 editions of the Codes of Practice. The Code of Practice for Energy Efficiency of Building Services Installation 2015 Edition for newly constructed buildings and existing buildings will take effect on 11 June and 11 September 2016 respectively, while the Code of Practice for Building Energy Audit 2015 Edition will take effect on 11 June 2016.

For more details about the Ordinance and the two Codes of Practice, please visit the EMSD web page (<http://www.beeo.emsd.gov.hk>).

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 500^[1] of the quiz participants answering all questions correctly will receive a souvenir (on a first-come-first-served basis).

- According to the Gas Safety Ordinance, a cylinder has to receive revalidation test within a period of how many years immediately before it is used to contain LPG? What is the maximum fine for contravention of such requirement?**
 A. Five years and \$5,000
 B. Ten years and \$5,000
 C. Five years and \$10,000
 D. Ten years and \$10,000
- According to the Identification Signage Scheme for LPG Vehicle Fuel System Maintenance Workshops, which is a new administrative measure, workshops displaying a red identification signage are permitted to store an aggregated nominal water capacity of more than how many litres of LPG?**
 A. 100 litres
 B. 110 litres
 C. 120 litres
 D. 130 litres
- Which of the following is not an escalator safety device?**
 A. Handrail inlet safety device
 B. Comb plate safety device
 C. Safety gear
 D. Unintentional reversal monitoring device
- The auxiliary brake will assist the main brake in stopping the escalator under which of the following circumstances?**
 A. Overspeeding
 B. Reversal travelling
 C. Failure of the main brake
 D. All of the above
- Which of the following is the proper way to use adapters?**
 A. Use an adapter with an extension unit connected to it
 B. Use an adapter with another adapter connected to it
 C. Use adapters with safety shutters
 D. Use adapters with irregular holes
- When will the Code of Practice for Energy Efficiency of Building Services Installation 2015 Edition for newly constructed buildings and existing buildings take effect respectively?**
 A. 11 June and 11 September 2016
 B. 11 February and 11 May 2016
 C. 11 March and 11 June 2016
 D. 11 June and 11 December 2016

REPLY SLIP ^[2]					
Name:			Tel.:		
Hong Kong Address:					
Answers:					
Q1	Q2	Q3	Q4	Q5	Q6
Where did you get this E&M Safety Newsletter?					
Residential estate	School	District Office	New immigrant centre		
Others (please specify):					

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

[2] 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 policy 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.

Answers to last issue's quiz: 1.B 2.C 3.A 4.B 5.C 6.B

Feedback

Your comments and suggestions, whether on editorial style or contents, are most welcome. Tell us how we can improve and make the E & M Safety Newsletter a truly informative and interesting publication for you. Please contact us if you have any comments or enquiries, or need a printed copy. Both the English and Chinese versions of the E&M Safety Newsletter are available on our website at <http://www.emsd.gov.hk>.

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 3 Kai Shing Street, Kowloon Bay

Tel. 電話: 1823 (電話中心 Call Centre)
 Fax 傳真: 2576 5945
 Email 電郵: info@emsd.gov.hk

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