


GAS SAFETY Bulletin



Message from the Editor

Dear readers:

This issue of the Gas Safety Bulletin features two topics, namely, Requirements and Procedures for Renewal of Approval of Domestic Gas Appliances and A New Milestone in Safety Management of Industrial and Commercial Gas Appliances.

Legal tips on gas safety are also offered, together with an article on how to avoid repeating mistakes by learning from gas safety incidents. For your reference, the gas incident and prosecution statistics by type for the year 2010 are also provided. 

Requirements and Procedures for Renewal of Approval of Domestic Gas Appliances

From 1 January 2003, all models of domestic gas appliances supplied or sold in Hong Kong must be approved by the Gas Authority, EMSD. All approved domestic gas appliances carry the GU mark, indicating that they have been manufactured in compliance with recognised international or national safety standards and local specifications (such as being fitted with flame failure devices), and having been satisfactorily checked in Hong Kong laboratories under local quality assurance schemes.



(TA1) and a Basic Safety Assessment Certificate (TA2) newly acquired in Hong Kong.


If an importer submits an application for renewal three months before the expiry of the approval but fails to provide adequate information of the gas appliance for vetting by EMSD before the approval expires, the renewal application will not proceed and the importer has to submit a fresh application for approval of the gas appliance concerned.

Approval of domestic gas appliances is valid for 5 years. If an importer intends to continue importing the gas appliance for sale and use in Hong Kong upon the expiry of the approval, he or she must submit an application for renewal of approval to EMSD three months before the expiry date of the approval. The following documents shall be submitted when applying for renewal of approval:

- (i) Revalidation Certificate(s) issued by a Recognised Certification Authority (RCA); and
- (ii) Quality Assurance Certificate(s) and Test Reports(s) for each year of importation within the five-year period.

If an importer fails to submit an application for renewal of approval for an approved domestic gas appliance three months before the approval expires, any renewal approval of the gas appliance following the expiry date of approval will be treated as a new application. The importer not only has to submit Quality Assurance Certificates for the five-year approval period, but also a valid Initial Type-test Certificate

In this regard, EMSD will write to importers six months before the expiry of approval, reminding them to submit their application for renewal of approval three months before the expiry date, and that they must submit adequate information of the gas appliance for our vetting so as to avoid unnecessary delay.

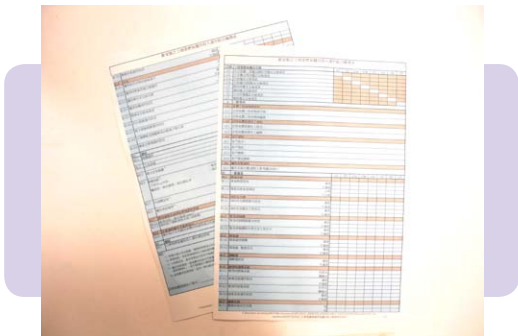
Lastly, we would like to remind importers that in accordance with regulation 3B of the Gas Safety (Miscellaneous) Regulations, importers shall not import gas appliances of an expired model for use in Hong Kong, and it is an offence in law for them to do so. Yet, selling and installing stock appliances imported before the expiry date of approval is fine. Should importers have any query about the requirements and procedures for renewal of approval of domestic gas appliances, please call us at 2808 3212. 

TA1 & TA2

A New Milestone in Safety Management of Industrial and Commercial Gas Appliances



In the 10th issue of the Gas Safety Bulletin, we briefly explained how the ventilation system is vital to the operation of the industrial and commercial gas appliances. It is absolutely beneficial to gas safety if industrial and commercial gas appliances are used correctly and safely, with a suitable ventilation system. On the other hand, good design and proper maintenance are also of paramount importance to the safety of industrial and commercial gas appliances. We cannot afford to neglect the importance of the design and maintenance of gas appliances. It is for this reason that a "Comprehensive Checklist for the Inspection and Testing of Industrial and Commercial Gas Appliances" has been compiled earlier on to provide a systematic inspection and testing checklist for use by trade members (i.e. registered gas installers and registered gas contractors) when carrying out inspection as well as repair and maintenance work to industrial and commercial gas appliances already in use. It is hoped that this checklist will also enable the industrial and commercial gas appliance owners and operators to have a better understanding of what is included in the maintenance and inspection programme for their gas appliances, so they will know how to prevent excessive release of carbon monoxide or other toxic gases by their appliances due to improper operation or maintenance, and prevent the occurrence of gas accidents.



Apart from encouraging the trade to better manage the inspection, testing and maintenance of industrial and commercial gas appliances already in use, we also attach equal importance to the management of the inspection and testing of newly installed industrial and commercial gas appliances. Similarly, EMSD has prepared a "Comprehensive Checklist for the Inspection and Testing of Newly Installed Industrial and Commercial Gas Appliances" with regard to newly installed gas appliances and fittings. The items for inspection and testing include soundness tests on the town gas system, the ventilation system in the kitchen, combustion performance, and flame failure device, etc.

The two above-mentioned checklists on the inspection and testing of industrial and commercial gas appliances will contribute to a better knowledge of the installation of industrial

and commercial gas appliances, as well as the requirements of the Gas Safety Ordinance and related regulations on the parties concerned. The explanatory details are as follows:

1) **The gas appliance installers** (i.e. the registered gas installers and registered gas contractors) should observe the following when carrying out gas installation work including installation, testing, repairing and replacement of gas appliances or fittings-

Safety measures for gas appliances

- Examine whether appropriate ventilating equipment is available in the room where the gas appliance is installed, and make sure that the use of the gas appliance will not constitute a danger to any person or property;
- Do not connect the appliance to the gas supply if it is found that the appliance cannot be used safely.

Manufacturer's instructions

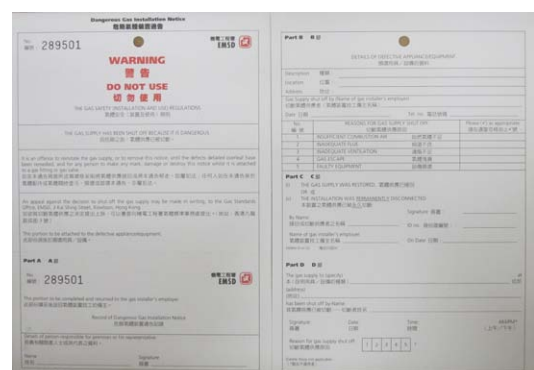
- The person in charge of the operation and management of the gas appliance installed should be provided with a copy of the manufacturer's operation manual, as well as instructions on the maintenance requirements of the gas appliance.

Tests on gas appliances

- Conduct soundness and functional tests on the gas appliance right after its installation to ensure that the appliance and its connecting gas tubing are both safe. Where necessary, adjust the gas appliance to ensure that it complies with the requirements of the technical standards. Disconnect the gas supply of the appliance if the requirements are not met.

Safety of gas fittings

- If a gas appliance is suspected to be malfunctioning or leaking gas, and if the problem cannot be rectified immediately after all reasonable steps have been taken to repair the fault, promptly disconnect the gas supply of the faulty appliance and display a "DANGER" warning notice on the appliance.




2) **The registered gas supply company** should only supply gas to an appliance after ensuring that suitable tests, inspection and adjustment have been carried out on the appliance concerned. Similarly, if a gas appliance is suspected to be malfunctioning or is leaking gas, and if the problem cannot be rectified immediately after all reasonable steps have been taken to repair the fault, promptly disconnect the gas supply of the faulty appliance and display a "DANGER" warning notice on the appliance.

3) **Owners or users of industrial and commercial gas appliances** should bear in mind that the gas appliance should not be used if it is known or suspected that -

- a) the gas appliance does not have enough air supply for proper combustion;
- d) the products of combustion from the gas appliance

cannot be safely removed;

- c) there is not enough ventilation or oxygen for the people in the indoor space;
- d) there is gas escaping from the gas appliance/fitting; and
- e) the gas appliance/fitting is non-compliant or maladjusted.


Moreover, in accordance with regulation 23 of the Gas Safety (Registration of Gas Installers and Gas Contractors) Regulations (Cap 51D), the registered gas contractor shall maintain records of all gas installation works undertaken by him for a period of not less than two years after the gas installation work was carried out. EMSD also suggests that the industrial and commercial gas appliance owners should maintain records of the relevant inspection and maintenance works for a period of at least two years. 



Display of Permit Label by Gas Vehicles

A recent court case involved a gas vehicle failing to display the valid permit label. The LPG cylinder wagon, which was found parked in an outdoor car park, was carrying a number of LPG cylinders without displaying on its windscreen the valid permit label for carrying LPG cylinders. The vehicle owner was eventually convicted and fined in court.


A gas vehicle means a motor vehicle designed and constructed, or adapted, primarily for the conveyance of LPG or LPG cylinders in large quantities on roads. According to

regulation 34 of the Gas Safety (Gas Supply) Regulations (Cap 51), the Gas Authority shall, in issuing or renewing a permit for a gas vehicle, also issue to the owner of the vehicle a label that goes with it. Therefore, no gas vehicle for which a permit has been issued shall be put on a road unless with the permit label displayed on the left-hand side of its windscreen in such a manner that the label is clearly visible from the front of the vehicle. Moreover, if the permit of the gas vehicle is no longer valid, the label issued with that permit shall be removed from the windscreen of the vehicle. Offenders will be prosecuted. 

Code of Practice

A Code of Practice includes standards, specifications and any other documentary forms of practical guidance. According to section 9 of the Gas Safety Ordinance (Cap 51), the Gas Authority may by notice in the Gazette approve and issue such codes of practice (whether prepared by him or not) as in his opinion are suitable. He may also revise or at any time withdraw his approval from a code of practice.

In criminal proceedings, if a defendant is alleged to have committed an offence under the Gas Safety Ordinance, and that the alleged offence is one which involves the approved code of practice, the code of practice may be admissible as evidence for determination by the court if the act concerned is considered to be in breach of the code of practice. Otherwise, the defendant shall have to prove that compliance with the stipulated requirements has been achieved by other

means. Take the gazetted Code of Practice on Avoiding Danger from Gas Pipes as an example. A person shall take all reasonable steps to ascertain the location and position of the gas pipe before carrying out any works in the vicinity of a gas pipe. Failure to do so is an offence under regulation 23A of the Gas Safety (Gas Supply) Regulations (Cap 51 sub. leg. B). However, the law also stipulates that where a code of practice is already in effect according to the requirements of regulation 23A (i.e. Code of Practice on Avoiding Danger from Gas Pipes), the defendant may in his defence provide proof that he already complies with the said code and has taken all reasonable steps to ascertain the location and position of the gas pipe in the works area. 



Legal Knowledge



Learn from Gas Safety Incidents and Avoid Repeating Mistakes

In a gas water heater accident in 2009, a young woman was found unconscious in the bathroom. She was sent to hospital where she was certified dead. The Coroner's Court held an inquest on the accident and concluded that the young woman died of carbon monoxide poisoning. The accident was caused by a non-EMSD approved gas water heater installed in the bathroom. As the gas water heater was not connected to a flue, exhaust gas (containing poisonous carbon monoxide) produced during the combustion process was discharged directly into the bathroom. Since the bathroom had no windows and was ventilated only by the gap at the door and the ventilation fan, the lack of timely and sufficient supply of oxygen and failure to discharge the combustion exhaust gas outside of the bathroom resulted in continued accumulation of large amounts of carbon monoxide, poisoning the young woman to death.

To prevent a repeat of the unfortunate gas accident, EMSD will continue to convey to the public information on the correct use of gas water heaters. In addition, we would also like to remind registered gas contractors and registered gas installers through this column to pay attention to the following points when installing, checking or maintaining gas water heaters.


1. When installing gas water heaters, first make sure that the new installation is an EMSD approved model and bears the GU Mark.
2. Ensure that the bathroom where the gas water heater is installed has good ventilation equipment, providing sufficient air for complete combustion and enabling effective discharge of combustion exhaust gas. Do not install any gas water heater if it is not compatible with the gas fitting.
3. Make sure that the gas water heater can be used normally and safely before connecting it to the gas supply.
4. The gas inlet to the water heater must be fitted with a gas shut-off control switch.
5. No work or alteration in relation to the gas water heater shall be carried out if it will result in non-compliance of the gas water heater with recognised standards.
6. The gas water heater and the connecting installation pipe must be tested immediately after installation to ensure that they

comply with the Gas Safety Ordinance and the manufacturer's requirements, and are in good condition.

7. The gas water heater being tested or examined must be adjusted where necessary to ensure compliance with the specified requirements.
8. The gas water heater must be examined immediately after maintenance work to ensure proper installation of the flue, good indoor ventilation and good condition of the gas water heater.
9. The owner or user of the gas water heater must be immediately notified in case of any defect found on the water heater. If the problem of the gas water heater cannot be rectified at once, the registered gas contractor or registered gas installer must disconnect its gas supply instantly and display a "DANGER" warning notice on the water heater or the disconnected gas valve.

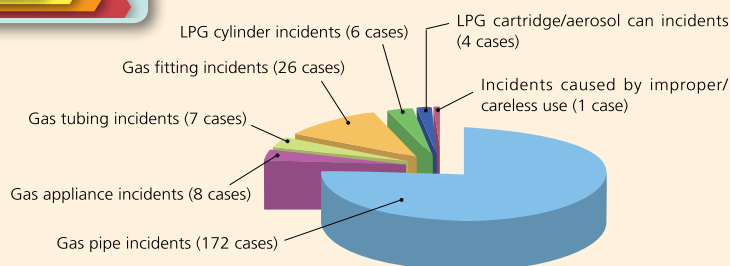
Lastly, if a registered gas contractor, registered gas installer or cylinder LPG distributor finds that a gas user still uses an open-flued (natural draught) gas water heater, he should explain to him the potential danger of using this old-type gas water heater and advise him to replace it with a safer water heater as soon as possible. If a gas user is found to be still using a flueless gas water heater in the bathroom or shower cubicle:-

- a. the registered gas contractor or registered gas installer should immediately disconnect the gas supply to the water heater, display a "Danger" warning notice on the water heater and inform the Gas Authority;
- b. the cylinder LPG distributor should explain to the user the potential danger of this type of gas water heater, advise him to stop using it immediately and inform the Gas Authority at once.

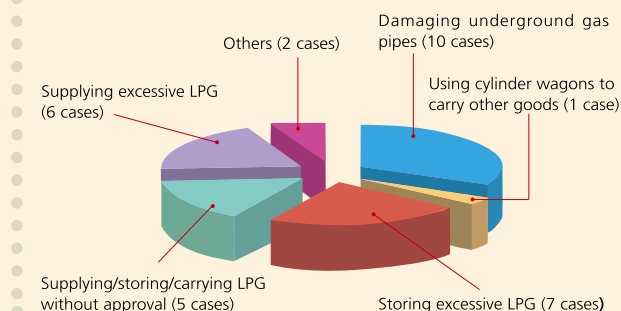
Meanwhile, we have asked all cylinder LPG supply companies to submit within April this year information about these old-type gas water heaters found during the previous year for follow-up. The LPG supply companies should have already informed their cylinder LPG distributors about this. We therefore appeal to the cylinder LPG distributors to help by furnishing the relevant information to their LPG supply companies as soon as possible, so that the LPG supply companies can compile and submit the required information on time. 

Gas Statistics

Reportable Gas Incidents by Type in 2010



Prosecutions by Type for LPG-related Cases in 2010



Gas Authority  EMSD

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