

Legislative Council Panel on Economic Services

FLUELESS AND OTHER GAS WATER HEATERS

INTRODUCTION

The Gas Safety (Installation and Use and Miscellaneous) (Amendment) Regulation 1999 (“Regulation”) will come into operation on 1 April 2000. It prohibits as from that date the sale or supply of a flueless gas water heater for use in Hong Kong, the new installation and the replacement of a flueless gas water heater by another flueless model. It also prohibits after 30 June 2000, the use of a flueless gas water heater to serve a bathroom or shower.

2. This paper informs members of the progress of implementation of the new Amendment Regulation and the position of other gas water heaters.

IMPLEMENTATION OF THE REGULATION

Action by the Gas Authority

3. Since the enactment of the new regulation in November 1999, the Electrical & Mechanical Services Department (the Gas Authority) has been liaising closely with the gas suppliers on the implementation of the proposed prohibitions. Briefings and on-site assistance are given to gas suppliers’ staff responsible for the disconnection/replacement programme. Follow-up site inspections are also conducted to monitor the progress of the replacement. Around 40,000 copies of an explanatory note on the Regulation have been provided to the gas suppliers for distribution to customers.

4. The Gas Authority has also informed and consulted other concerned government departments on the implementation of the new legislative requirements. It has been working closely with the Social Welfare Department to disseminate new safety requirements to the elderly and the infirm. A referral system will be established such that upon receiving

notification by gas suppliers, the Social Welfare Department (SWD) will follow up and provide necessary financial assistance as appropriate. As advised by SWD, CSSA recipients having genuine difficulty in meeting the cost of replacing their flueless gas water heaters can be given a special grant to cover the expenses having regard to the merits of individual cases.

5. The Gas Authority has been actively publicising the new safety requirements to the public. In conjunction with the Information Services Department, it has embarked on a vigorous publicity campaign to increase public awareness of the new safety requirements for flueless gas water heaters. The publicity campaign includes:-

- (a) regular broadcasts on TV and radio, and special features in TV programmes;
- (b) advertisements in major Chinese and English newspapers;
- (c) distribution of 5,000 safety posters and 20,000 leaflets to gas suppliers, the Housing Department, District Offices and the media;
- (d) 15 gas safety road shows and carnivals in housing estates;
- (e) distribution of 1,300 letters to architects, professional institutions and estate management organisations advising them of the new safety requirements; and
- (f) display of the new safety requirements on the Gas Authority web site.

Action by Gas Suppliers

6. Since the enactment of the legislation, the Hong Kong & China Gas Co Ltd (HKCG) and the LPG suppliers have been visiting their clients known to be using flueless gas water heaters to advise them of the need to replace those connected to bathrooms/showers. Staff of the Gas Authority has been accompanying the gas suppliers to some of these visits, especially when

the latter have difficulties in gaining access or in convincing their clients of the need for replacement.

7. By end February, HKCG and piped LPG suppliers have visited all their clients' premises known to have flueless gas water heater connected to bathrooms or showers. They have respectively replaced or disconnected some 10,500 flueless gas water heaters (comprising some 8,900 or 56% of Towngas units and some 1,600 or 28% of LPG units). Apart from visits to premises, both of them have launched various publicity campaigns including newspaper advertisements, radio broadcasts and safety exhibitions. Safety messages were mailed to customers. HKCG offers sale discounts, instalment incentives, rental and subsidy options for the replacement of the flueless heaters. Individual LPG suppliers also offers different sales discounts to customers.

Further action

8. Although over half of the estimated number of flueless gas water heaters connected to bathrooms or showers have been replaced, the Gas Authority and the gas suppliers are further gearing up their publicity and inspection work in the run up to 1 April and 1 July 2000. From March to June, the gas suppliers will re-visit those premises where they could not gain access during the previous visits. HKCG has also started to re-mail safety messages. The Gas Authority is also encouraging the gas suppliers and distributors to step up their visit programmes for a small number of users having flueless heaters connected to LPG cylinders, and to provide on-site assistance if necessary. (The industry estimates that, of around 11,000 flueless heaters still to be disconnected/replaced, only some 500 are connected to LPG cylinders.)

9. Concurrently, the Gas Authority has commenced a programme of visits to the housing estates, to include areas with a high concentration of LPG flueless heaters and where the conversion progress appears slow e.g. Kwun Tong, Tai Po and Tuen Mun. The Gas Authority staff is also attending evening meetings of the Mutual Aid Committees to explain and advise on the new safety requirements. An initial programme of 12 evening talks will commence later this month in a number of housing estates.

10. The Gas Authority will further augment the current publicity campaign. New leaflets and posters will be distributed to the Housing Department, the Social Welfare Department, the Home Affairs Department, the District Offices and other concerned parties. From mid March – mid April, safety posters will be displayed at MTR carriages, as well as selected MTR, KCR and LRT stations, targeting housing estates where flueless heaters are installed. A new campaign will also be launched focusing on the need to replace all existing water heaters before 1 July this year.

11. The Gas Authority will commence inspection of retail outlets in April to check on water heater sales. Together with the gas suppliers, it will monitor closely the progress of the disconnection and replacement of the old flueless water heaters. Extra staff resources will be deployed for the inspection work and to provide assistance to the public and the gas suppliers. The overall situation will be regularly reviewed so that early consideration can be given to any additional measures which may be required before 1 July and enforcement action thereafter.

OTHER GAS WATER HEATERS

12. There is a total of about 1.5 million gas water heaters installed in Hong Kong. The vast majority (over 1.4 million) are modern, room-sealed (balanced flue) or powered flue models. The small number of remaining units include the flueless and the open-flue (natural draught) models.

Flueless Gas Water Heaters in Kitchens

13. Pursuant to the advice of the Gas Safety Advisory Committee (GSAC), the Regulation does not prohibit the use of flueless gas water heaters installed before 1 April 2000 for kitchen sinks. To ensure that the users meet the safety requirements, the Gas Authority will arrange for additional publicity on their correct use and for the gas suppliers to increase the frequency of their safety inspections from once every 18 months to once every 12 months. The safe use of these heaters will be monitored and GSAC will be consulted on how best to encourage users to replace them in due course.

Open-Flue Water Heaters

14. There are two types of open-flue water heaters, namely the fanned draught model and the natural draught model.

15. The open-flue (fanned-draught) model operates on the basis of a powered flue and is regarded as a safe replacement for flueless gas water heater. Currently it is estimated that there could be over 200,000 such units installed in Hong Kong.

16. The open-flue (natural draught) water heaters are widely used in Europe and the USA. They have been designed to supply hot water to both kitchens and bathrooms/showers, and for connection to a flue so that the combustion products can be safely discharged outside the premises. These water heaters are safe but it is important that they are properly maintained and there is adequate ventilation. However, they have been gradually phased out in Hong Kong since the mid 1980's because bathrooms in Hong Kong are relatively small, there are practical constraints in the installation of vertical flue pipes and there are better models. The Gas Safety Ordinance (1991) and the Gas Safety (Installation and Use) Regulations prohibited the installation of new open-flue (natural draught) water heaters, with a view to accelerating the phasing out of this model. Currently, the industry estimates that some 1,367 units remain installed inside bathrooms and about 15,000 in kitchens.

17. In the last five years, there were no fatalities reported involving open-flue heaters. Nonetheless, the Gas Authority would like to encourage the early replacement of these heaters particularly those installed in bathrooms, where the ventilation may not be as good as in kitchens. The Gas Authority will be consulting the Gas Safety Advisory Committee in the coming months on the appropriate course of action. It is noted that the vast majority of the open-flue (natural draught) water heaters are connected to Towngas or piped LPG suppliers, and their locations could be identified.

WAY AHEAD

18. The Gas Authority will continue to monitor the safe use of gas water heaters and seek advice from the Gas Safety Advisory Committee as appropriate. New legislation on the safety requirements for domestic gas

appliances is also being prepared.

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Electrical and Mechanical Services Department
March 2000