

For information

**LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS**

**USE OF LIQUEFIED PETROLEUM GAS VEHICLES IN HONG KONG
AND CONTROL OF DANGEROUS GOODS**

Purpose

Pursuant to the Panel's request at the meeting of 27 April 2015, this paper, which consolidates information from relevant departments, provides the following reply for members' reference:

- a) use of liquefied petroleum gas (LPG) vehicles in Hong Kong, including the statutory gas safety requirements for LPG, and the safety requirements for LPG vehicles and their repair workshops; and
- b) control on the safe handling of other types of dangerous goods, as well as the berthing of vessels carrying dangerous goods in the vicinity of residential areas.

Background

2. To reduce emissions from vehicles, improve roadside air quality and protect the health of the public, the Government proposed in 1999 incentive schemes to encourage the early replacement of diesel taxis and light buses with LPG ones, which are more environmentally friendly. An incentive scheme was launched in 2000 for replacing diesel taxis with LPG ones and the legislation amended to require taxis registered on or after 1 August 2001 to run on either LPG or petrol. Similar incentive scheme was launched in 2002 for the replacement of diesel light buses with LPG or electric ones. At present, there are about 18,000 LPG taxis and about 3,700 LPG light buses in Hong Kong with 67 LPG filling stations providing LPG filling services for them.

Statutory Gas Safety Requirements

3. The Gas Safety Ordinance regulates gas safety matters, with a view to ensuring the safety of importation, manufacture, storage, transport, supply and use of town gas, LPG and natural gas.

4. In respect of LPG storage and installation, any container with the aggregated nominal water capacity of more than 130 litres of LPG is a “notifiable gas installations (NGI)”. The construction and use of such installation require the approval of the Electrical and Mechanical Services Department (EMSD). At present, there are 571 approved LPG NGI, including 29 vehicle maintenance workshops with approved NGI as well as five LPG fuel tank workshops.

5. Work involving the maintenance, repair or replacement of LPG vehicle fuel system or associated components and replacement of LPG fuel tank is required to be carried out by a Competent Person (Class 6) or a person under the supervision of a Competent Person (Class 6). Any maintenance, repair or replacement work related to LPG fuel system (not involving the structure of LPG fuel tank) or associated components can be carried out in all vehicle maintenance workshops that have Competent Persons (Class 6). Competent Persons (Class 6) approved by EMSD are required to complete the LPG Vehicle Servicing Programme course provided by the Vocational Training Council and possess relevant practical experience. At present, there are over 1,100 Competent Persons (Class 6) in Hong Kong.

6. As for maintenance work involving the structure of an LPG fuel tank or components within an LPG fuel tank (including the purging of LPG inside the tank, replacement of a fuel pump within the tank and the conduct of the five-year revalidation test of the tank), they should be carried out by a Competent Person (Class 1) approved by EMSD or a person under the supervision of a Competent Person (Class 1) and in an LPG fuel tank workshop approved by EMSD. Competent Persons (Class 1) is a member of a relevant professional association of engineers with at least one year relevant work experience and has passed EMSD’s interview assessments.

7. Owners of LPG fuel cylinder (such as owners of LPG vehicle) are required to test and examine the LPG cylinder (including fuel tanks of LPG vehicle) at least once every five years. Revalidation test and examination for LPG fuel tank are required to be

carried out by a Competent Person (Class 1) or a person under the supervision of a Competent Person (Class 1) in an LPG fuel tank workshop. The competent person are required to ensure that the inspection and testing of LPG fuel tank are carried out in accordance with the requirements, and certify that the LPG fuel tank complies with the required standards with a copy of the certificate sent to EMSD and copied to the owner.

8. As for general maintenance and repair of vehicles not involving the procedures mentioned above, the work can be carried out in all vehicle maintenance workshops.

Registration and Examination of LPG Vehicles

9. The Transport Department (TD) registers and licenses vehicles for use on roads, and examines vehicles to verify their roadworthiness. TD will seek expert advice from the EMSD on the LPG fuel system during the LPG vehicles type approval examination. TD will also check the revalidation date marked on the LPG tank during annual vehicle examination to ensure that the LPG fuel tanks are in compliance with the EMSD's revalidation standards.

Enforcement and control on dangerous goods

10. Pursuant to the Dangerous Goods Ordinance (Cap. 295), the Fire Services Department regulates, by means of licence, the manufacture, conveyance, storage and use of dangerous goods (DG) (except Cat. 1 DG) on land. In this connection, no person shall manufacture, store, convey or use any DG exceeding exempt quantity without a valid Dangerous Goods Licence. Mines Division of the Civil Engineering and Development Department regulates the manufacture, conveyance, storage and use of Category 1 DG on land.

11. Pursuant to the Dangerous Goods (Shipping) Regulations (Cap. 295C), a local vessel used for the conveyance of DG in packaged form shall possess a valid Operating Licence and a valid Declaration of Fitness issued by the Director of Marine for the carriage of such DG. In addition, a Removal Permit is required for any local vessel conveying Category 1 DG (explosives); and a Carriage Permit is required for the conveyance of other DG.

12. The handling of DG on board a local vessel shall be under the charge of a person who has completed a recognized training course. Furthermore, a local vessel shall notify the Director of Marine of the specified details of the voyage and DG for and before every voyage on which DG are carried on board, according to the “Dangerous Goods Notification System” administered by the Marine Department.

13. All vessels, including local, ocean-going and river-trade vessels conveying explosives and certain inflammables are not allowed to berth within or enter the boundaries of the Victoria Harbour or any typhoon shelters. Depending on the type of DG, they shall berth at an approved container terminal or petroleum wharf; or anchor in a DG anchorage, which is far away from residential areas.

14. Members are invited to note the above control on the use of LPG vehicles and dangerous goods as well as the safety requirements for relevant facilities.

Environmental Protection Department

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