

For information

**Legislative Council
Panel on Environmental Affairs**

**Parking of Liquefied Petroleum Gas Vehicles
in Underground Car Parks**

Purpose

In the light of the increasing number of taxis and light buses that are run on liquefied petroleum gas (LPG) in Hong Kong, the Administration has examined whether or not there is a need to control the parking of these vehicles in underground car parks from the safety perspective. This note sets out our position.

Safety Design Features of LPG Taxis and Light Buses

2. The LPG taxis and light buses in Hong Kong are designed and constructed to meet stringent safety requirements. All the models available here are original-equipment-manufactured (OEM) and produced under tight quality control for running on LPG. Specifically, they have closed LPG fuel systems protected by built-in excess flow valves and pressure relief valves. Their fuel tanks are -

- (a) designed and constructed to meet international standards, and are more robust than the fuel tanks of petrol and diesel vehicles;
- (b) securely fixed at a recessed position with extra bodywork as buffer; and
- (c) equipped with an automatic fill-limiter that will automatically stop refilling when 85% of the maximum capacity of the tank is reached to allow space for normal expansion of LPG in the tank under ambient temperature.

These comprehensive safety features make the LPG vehicles supplied to Hong Kong as safe as their petrol and diesel counterparts.

3. LPG vehicles are not new technologies. They have been widely used in many overseas countries such as Japan and the Netherlands for over 30 years. LPG vehicles can also be found in the US (New York, California, Oklahoma City, Texas, Arizona), the U.K., Australia, Canada and Belgium. According to the latest information that we have obtained, there is no restriction in these places on the parking LPG vehicles in underground car parks except for Canada and Belgium where LPG vehicles not fitted with a fill-limiter may not be parked in underground car parks. As mentioned in para.2(c) above, all the LPG taxis and light buses available in Hong Kong are fitted with a fill-limiter.

4. The possible gas safety risk of an LPG vehicle in an underground car park is when its gas tank is seriously damaged as a result of collision with another vehicle to such an extent that LPG is leaked into the confined space within the car park. The chance of this happening is extremely slim, as vehicles cannot travel at such a high speed in underground car parks as will cause rupture of the fuel tank of an LPG vehicle in a collision.

5. Another consideration is that very few taxis are parked in car parks, including those underground, for a long period of time. Most taxis are out on the road at most of the time a day when their drivers take shift duties and will only be parked in car parks for a short period of time. As regards light buses, the majority of them park on-street instead of in covered or underground car parks.

6. With the foregoing, the Administration considers that there is no need to restrict the parking of LPG vehicles in underground car parks in Hong Kong. The Gas Safety Advisory Committee, the membership of which includes gas suppliers, gas equipment installation service providers, engineering institutions and tertiary educational institutes, supports the Administration's position.