

**立法會**  
**Legislative Council**

LC Paper No. CB(1)631/07-08

Ref: CB1/PL/TP

**Panel on Transport**

**Updated Background Brief on  
Safety of Franchised Bus Operation**

**Introduction**

During the 2006-2007 legislative session, the Panel on Transport (the Panel) held four meetings on 24 October 2006, 2 and 23 March 2007, and 9 July 2007 with the Administration and the franchised bus companies to review measures to enhance safety of franchised bus operation. A background brief for the meeting on 24 October 2006 was issued to members vide LC Paper No. CB(1)113/06-07. This paper updates members on major issues raised by the Panel in the last legislative session.

2. At the Panel meeting on 18 December 2007, the Panel agreed to revisit the related matters at the forthcoming meeting to be held on 28 January 2008.
3. At the Council meeting on 16 January 2008, Hon Albert Jinghan CHENG raised an oral question on the structural safety of franchised buses. The question and the Administration's reply are in **Annex A**.

**The Panel's views**

4. The Panel considers that the Administration should seriously consider the proposal to introduce mandatory requirements for installation and wearing of passenger seat belts on franchised buses to enhance bus safety. There is also a need to ensure that bus drivers have sufficient rest time and that refresher and enhancement courses be provided to serving and new drivers to enhance their safety awareness. The Panel also urges the Administration to review the design of bus structure and body with a view to providing maximum protection for bus passengers, and to closely monitor the franchised bus operators' maintenance programmes to ensure the mechanical road-worthiness and safety of buses.

Motion passed by the Panel

5. At the meeting on 23 March 2007, the Panel passed a motion urging the Administration to immediately implement measures to enhance the safety of franchised bus operation. The wording of the motion is as follows:

"That as a number of franchised bus accidents involving passenger casualties have occurred in recent years, this Panel urges the Government to immediately implement measures to enhance the safety of franchised bus operation, which should include the introduction of legislation to require bus passengers to wear seatbelts, and requirement of franchised bus operators to install seatbelts on their buses and to improve working schedule and rest-break arrangements for their bus captains, etc to ensure the safety of bus passengers; at the same time, this Panel also expresses dissatisfaction with and regret over the Transport Department's failure to accept members' views."

6. At the Panel meeting on 9 July 2007, the Administration briefed members on the progress of various measures implemented to further enhance the safety of franchised bus operation.

### **Retrofitting of seat belts on buses**

7. On members' suggestion to require bus companies to install/retrofit seat belts on existing buses, the Panel notes that the bus companies have sought expert advice on the need for, and the feasibility of, retrofitting seat belt on their fleets to further enhance passenger safety on double deck buses. Having regard to the professional advice of bus manufacturers, the Administration recommends that the following measures be implemented to further enhance bus safety:

- (a) to retrofit seat belt at the four seats on the first row on the upper deck of post-1997 design buses;
- (b) to install/add handrail, armrest or other facilities where appropriate for the other exposed seats to further enhance passenger safety during sharp acceleration/deceleration;
- (c) to install an additional horizontal guard rail across the upper deck windscreen of pre-1997 design buses for further protection to the front seat passengers;
- (d) to accord priority to the retrofitting of seat belt or installation of the additional guard rail on buses which operate on expressways;
- (e) to examine with the bus companies advancement of vehicle replacement programme to replace the old buses earlier as far as their financial situation permits; and
- (f) to ensure that new buses purchased by bus companies will have seat belts on all exposed seats.

### **Requiring passengers to wear seat belts where provided**

8. On the proposal to require passengers to wear seat belts where provided, the Administration advises that it has an open mind and will be prepared to consider making wearing of seat belts if fitted on franchised buses a legislative requirement as and when the majority of franchised buses are fitted with seat belts for the exposed seats on the first row on the upper deck.

### **Review on working hours of bus captains**

9. On the review on working hours of bus captains, the Administration advises that Transport Department (TD), in conjunction with the franchised bus companies, has reviewed the existing Guidelines on Working Schedule for Franchised Bus Drivers issued by TD to schedule the working and rest time of bus captains. They have identified room for enhancing the rest time of bus captains. Taking into account of views of the bus captain unions and bus companies, the following revisions to the Guidelines have been made –

- (a) Guideline A stipulates that bus captains should have a break of at least 30 minutes after six hours of duty and within that 6-hour duty, the captains should have total service breaks of at least 20 minutes. While maintaining this requirement, it is further refined to stipulate that a rest time of at least 12 minutes in total should be within the first four hours of the duty; and
- (b) Guideline D on the break period between successive working days would be revised from the current 9 hours to no less than 9.5 hours.

The revised Guidelines incorporating the recommended revisions are in **Annex B**.

### **Other improvement measures**

#### Design and construction of franchised bus

10. Regarding the design and construction of franchised bus, the Panel notes the Administration's view that the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A) already stipulates the requirement for the design and construction of franchised bus. All franchised buses that provide services to passengers must meet the safety requirements of the legislation and pass TD's stringent inspections. Every franchised bus has to undergo an annual examination by TD to ensure its safety and roadworthiness. TD also conducts random spot checks on franchised buses to monitor their proper maintenance.

11. The Administration also advises that all double deck buses currently operating in Hong Kong were imported from Europe and comply with the European requirements. The major bus manufacturers have confirmed that the body structure of franchised buses in Hong Kong is the same as those supplied to other countries such as the United Kingdom, the United States and Singapore. The major double deck bus body supplier has also confirmed that the use of aluminum alloy on bus body has been an international trend in recent years. The supplier explains that the use of material stronger than aluminum may not be good during accidents as it may cause other types of casualties. In fact, the rigidity of the structure relies mainly on the design. The body strength has been designed based on safety, reliability and stability considerations for a life span of 20 years in arduous operating conditions. Optimum design using computerised analysis can achieve strength, reliability and stability. TD and the bus companies will discuss with the major bus body suppliers to further improve the body design to enhance safety.

12. The Panel also notes the latest developments regarding bus captain training and publicity on bus safety.

#### **Follow-up to the meeting on 9 July 2007**

13. At the meeting on 9 July 2007, members requested the Administration and franchised bus companies to consider re-deploying more buses with seat belts at exposed seats to operate on expressways and restricting buses without seat belts at exposed seats from operating on expressways; and advancing the replacement programme of the pre-1997 design buses. A progress report in this regard provided by the Administration was circulated to members vide LC Paper No. CB(1)434/07-08(01) in December 2007 (**Annex C**).

Council Business Division 1  
Legislative Council Secretariat  
22 January 2008

## Press Releases

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LCQ4: Structural safety of franchised buses

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Following is a question by the Hon Albert Cheng and a reply by the Secretary for Transport and Housing, Ms Eva Cheng, at the Legislative Council meeting today (January 16):

Question:

In Hong Kong in recent years, franchised buses were involved in a number of traffic accidents and it is often heard that the vehicle bodies of the double-decked buses involved in the accidents were severely damaged after colliding with other vehicles, and passengers on the upper deck who were thrown out of the buses were injured or died. In this connection, will the Government inform this Council:

(a) apart from stipulating the design and construction requirements of franchised buses in the Road Traffic (Construction and Maintenance of Vehicles) Regulations, whether the Government has prescribed other requirements in respect of the vehicle bodies of buses (such as the materials used, structural safety and impact resistance, etc.); if so, of the details;

(b) whether there is a requirement that for the new buses purchased by the various franchised bus companies in Hong Kong, all the body components assembled in Hong Kong must be produced by the original manufacturers; if there is no such requirement, whether it has assessed if using components not produced by the original manufacturers will weaken the impact resistance of the vehicle bodies of buses; if such an assessment has been made, of the results; and

(c) following the occurrence of a number of the above accidents, whether the Government has reviewed the structural safety standard prescribed for the vehicle bodies of franchised buses; if so, of the results; if not, the reasons for that?

Reply:

Madam President,

The Government attaches great importance to the safety of bus passengers. Every bus has to pass a comprehensive inspection and a tilt test required by the Transport Department (TD) before it is put into service. A licence will be issued by TD only when legal requirements are met and structural safety is confirmed.

My reply to the three parts of the question is as follows:

(a) Regulation 5 of the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap 374A) stipulates that every vehicle, including a bus, shall be soundly and properly constructed of suitable materials. Manufacturers of the buses currently in use in Hong Kong all come from the European Union (EU) and their designs comply with EU requirements. Every bus is designed by its manufacturer and has undergone tests to ensure structural safety. In terms of structure, the double-decked buses running in Hong Kong are the same as those in other countries such as the United Kingdom, the United States and Singapore.

Currently, there is generally no requirement on impact

resistance for buses around the world. There is also generally no specific requirement on the materials used for buses. Therefore, TD has not prescribed other requirements, such as on impact resistance or materials used in respect of the vehicle bodies of buses. When determining whether a bus fulfills the above legal requirements, TD will consider information provided by the bus manufacturer, including overseas experience in using the bus, compliance with requirements of the place of origin, and the track record.

(b) At present, new buses are mostly assembled locally. TD has no requirement on the source of body components of buses, but all parts of the bus bodies assembled in Hong Kong are provided by the original bus body manufacturers and the assembly work is conducted by trained personnel of the contractors. To ensure that the assembly standards meet the design requirements set by the manufacturers, the assembly work is undertaken by professionally trained personnel and the process is supervised by engineers from the bus body manufacturers. Moreover, all the buses assembled have to pass the safety examinations (such as those on the brake system, the lighting system and the steering system) and the tilt test required by TD before the issue of licence.

(c) Every bus operating in Hong Kong is designed by its manufacturer and has passed a comprehensive inspection and a tilt test required by TD. The body structure is safe. Whenever there are serious traffic accidents involving buses, TD will demand detailed reports and improvement plans from the bus companies in question.

In response to recent accidents resulting in severely damaged bus bodies and casualties arising from passengers being thrown out of the bus, TD has started discussions with bus companies to speed up the fitting of safety belts for exposed front seats on the upper deck or the installation of guardrails across the upper deck windscreen of existing buses.

To further enhance bus safety, TD has invited academics from mechanical engineering departments of universities and representatives from institutes of mechanical engineering, together with bus manufacturers and franchised bus companies to meet in early January to have a discussion on the structural safety of buses, such as the strength of seats on upper deck and the installation of guardrails across the upper deck windscreen. TD will continue to keep a close watch on the structural safety and maintenance of buses to ensure the safety of bus passengers.

Ends/Wednesday, January 16, 2008  
Issued at HKT 15:32

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**Guidelines on Bus Captain Workin**

(Revised in July 2007)

- Guideline A - Bus captains should have a break of at least 30 minutes after 6 hours of duty and within that 6-hour duty, the bus captains should have total service breaks of at least 20 minutes of which no less than 12 minutes should be within the first 4 hours of the duty.
- Guideline B - Maximum duty (including all breaks) should not exceed 14 hours in a day.
- Guideline C - Driving duty (i.e. maximum duty minus all breaks of 30 minutes or more) should not exceed 11 hours in a day.
- Guideline D - Break between successive working days should not be less than 9.5 hours.

**Legislative Council Panel on Transport**  
**Progress on Measures to Enhance Safety of Franchised Bus Operation**

**PURPOSE**

This paper reports on the Administration's discussion with the franchised bus companies on the following suggestions raised by the Legislative Council Panel on Transport ("the Panel") Members at the Panel meeting on 9 July 2007 on measures to further enhance the safety of franchised bus operation -

- (a) re-deploying more buses with seat belts at exposed seats to operate on expressways and restricting buses without seat belts at exposed seats from operating on expressways; and
- (b) advancing the replacement programme of the pre-1997 design buses.

**DISCUSSION OUTCOME**

**(a) Re-deploying more buses with seat belts at exposed seats to operate on expressways and restricting buses without seat belts at exposed seats from operating on expressways**

2. The Transport Department ("TD") has reviewed with the franchised bus companies on the deployment of buses on expressways. In general, in considering the deployment of buses on specific routes, a number of factors have to be taken into account, including passenger demand, safety and environmental concerns as well as the need to cater for wheel-chair bound passengers' special needs, etc.

3. As at June 2007, out of the 2,160 buses with seatbelts at exposed seats in Hong Kong, about 1,170 have been deployed on routes running on expressways. The reasons for not deploying the remaining 990 buses of this type on expressways are as follows -

- (i) in order to meet the travel need of the wheel-chair bound passengers, TD and the franchised bus companies have agreed to deploy low floor buses with wheel-chair accessible ramps on a number of bus routes. Whilst many of these wheel-chair accessible buses with seat belts at exposed seats are operating on expressways, some of them have to be deployed on routes operating on routes within the built-up areas. To redeploy more buses with seat belts at exposed

seats to operate on expressways would affect the existing wheel-chair bound passengers who are using these routes; and

- (ii) due to the public's concern on roadside air quality, the Administration and the franchised bus companies are committed to deploying environmentally friendly buses of Euro II or above emission standard on the major busy corridors including Yee Wo Street, Hennessy Road, Queensway, Des Voeux Road Central and Nathan Road as far as practicable. The majority of these environmentally friendly buses are newer buses with seat belts at exposed seats. To redeploy more buses of this type to operate on expressway routes would reduce the number of environmentally friendly buses operating on the busy corridors.

Despite the above constraints, TD and the bus companies have identified 30 more buses with seat belts at exposed seats to operate on expressways as from the fourth quarter of 2007.

4. TD has also examined the feasibility of restricting buses which do not have seat belts at exposed seats from operating on expressways. However, as the number of buses involved would be in the region of 1,180, the level of bus services would be seriously affected if the proposal were implemented. Despite so, to further enhance the safety of bus operation, the franchised bus companies have agreed to retrofitting seat belts on the upper deck front row seats of the post-1997 design buses, and installing additional guard rails across the upper deck windscreen of the pre-1997 design buses. The target is to complete the installation of guard rails on all those pre-1997 design buses operating on expressways by March 2008, and the retrofitting of seat belts on the 225 buses now operating on expressways by the fourth quarter of 2008. All buses deployed to run on expressways will have seatbelts or guard rails with the completion of these works.

#### **(b) Advancing the replacement of pre-1997 buses**

5. According to the current programme of the franchised bus companies, the replacement of all the pre-1997 design buses will be completed by 2015. TD has reviewed with the franchised bus companies the scope of advancing the replacement of their pre-1997 design buses as far as their financial situation permits and identified about 270 pre-1997 design buses the replacement

of which can be advanced by one to three years, taking into account a number of factors including the normal serviceable life of buses, the financial capability of the bus companies, the fare implications on passengers and bus resource requirement against the opening of more railways in the coming years. TD will constantly review with the bus companies from time to time to expedite the replacement programme as appropriate.

Transport and Housing Bureau  
Transport Department  
December 2007