

For Discussion on 18 June 2001

## Legislative Council Panel on Economic Services

### Proposed Amendments to the Air Navigation (Dangerous Goods) Regulations and the Dangerous Goods (Consignment by Air) (Safety) Regulations

#### Introduction

This paper briefs Members and invites their views on our proposals to amend two sets of Regulations in order to effect the latest international standards in the transport of dangerous goods (DG) by air.

#### Background

##### *International Standards*

2. To ensure aviation safety, the International Civil Aviation Organization (ICAO)<sup>1</sup> sets out requirements regarding the transport of DG<sup>2</sup> by air. These requirements relate to matters such as the classification, packaging, marking, loading and consignment of DG. The general requirements are set out in Annex 18 to the Convention on International Civil Aviation (the Chicago Convention). Detailed provisions are contained in the “Technical Instructions for the Safe Transport of Dangerous Goods by Air” (TI), which are updated and published by ICAO biennially as a regular exercise.

3. In general, the requirements cover the following aspects :

- (a) DG are divided into classes according to the nature and levels of hazard. Some DG are too dangerous to be carried on aircraft. Others may be carried subject to conditions (e.g. by freighters but not in the bellyhold of passenger aircraft);

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<sup>1</sup> ICAO was established by the Convention on International Civil Aviation and is the world’s most important organisation in the field of civil aviation. At present, it has over 185 Contracting States. Its objectives are to promote the development of international civil aviation in a safe and orderly manner, and to ensure that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically.

<sup>2</sup> DG include explosives, flammable liquids and solids, oxidizing substances, radioactive materials, corrosive materials, etc.

- (b) DG must be properly packed unless, say, they are in limited quantities. While there may be a choice in the selection of packaging, the quantity of DG which can be put into a package is strictly controlled for safety reasons;
- (c) there are marking requirements to ensure that packages containing DG can be recognised and warning given of the potential hazard without relying on information in the accompanying documents;
- (d) DG must be properly loaded on aircraft, e.g. segregation of incompatible DG;
- (e) there are requirements for the reporting of DG incidents in order to help identify any room for improvement in the existing safety control arrangements; and
- (f) training is regarded as an important element in ensuring compliance with the relevant safety requirements.

ICAO leaves it up to members to determine how the TI should be implemented and enforced locally. Taking into account the need for translating the requirements of the TI into local legislation or administrative measures, there is usually a gap between the effective date of the new standards set by ICAO and the actual date of implementation by various authorities.

#### *Regulations in Hong Kong*

4. As the Chicago Convention is applied to Hong Kong, we have to take necessary measures to comply with the requirements in the TI. This is achieved by making references to the TI provisions in two sets of local regulations, viz the Air Navigation (Dangerous Goods) Regulations (AN(DG)R) made under Article 44 of the Air Navigation (Hong Kong) Order (AN(HK)O) (Cap. 448, sub. leg.) and the Dangerous Goods (Consignment by Air) (Safety) Regulations (DG(CAS)R) made under the Dangerous Goods (Consignment by Air) (Safety) Ordinance (Cap. 384).

5. Under the AN(DG)R, airlines involved in the transport of DG have to apply for permission from the Civil Aviation Department (CAD) and comply with all conditions attached. They are required to establish DG training programmes for their staff and/or agents, so as to ensure that all of

them are conversant with the handling of DG, such as inspection for damage or leakage. Other requirements include the retention of transport documents for six months and the reporting of DG accidents or incidents to CAD. Under the AN(DG)R and the DG(CAS)R, shippers and freight forwarders are required to ensure that DG consigned for transport by air comply with the TI requirements in respect of proper classification, labelling, packaging, marking and documentation. The TI references in both sets of Regulations are updated in accordance with the ICAO biennial updating exercise.

### **New Technical Instructions**

6. CAD received the 2001-2002 edition of the TI (the new TI) from ICAO in March this year. The new TI will come into effect on 1 July 2001. They set out the responsibilities of concerned parties including shippers, freight forwarders and airlines in the transport of DG by air, and are divided into eight parts -

- (a) general provisions;
- (b) classification of DG;
- (c) DG list and limited quantities exceptions;
- (d) packing instructions;
- (e) shipper's responsibilities;
- (f) packaging nomenclature, marking requirements and tests;
- (g) operator's responsibilities; and
- (h) provisions concerning passengers and aircrew.

7. When compared with the 1999-2000 edition, there are major reformatting and renumbering of the provisions to facilitate the use of the TI. Other changes, which are all technical in nature, are described in the following sections.

#### *Alignment with other international requirements*

8. To help ensure that the safety standards in the transport of DG by air are compatible with those by sea or by land, the requirements in the TI have been modified to mirror those in the "United Nations (UN) Recommendations on the Transport of Dangerous Goods" and the "International Atomic Energy Agency (IAEA) Regulations for the Safe Transport of Radioactive Materials". Examples of these modifications include regrouping various topics in the TI to follow the format of the relevant UN Recommendations, adopting the definition and packaging requirements for radioactive materials used in the IAEA Regulations,

excluding from the TI radioactive materials implanted or incorporated in a person for diagnosis or treatment purposes and repealing the provision which permits a freight container to be used simultaneously as packaging for radioactive materials.

#### *Exemption provision*

9. The requirements for the safe carriage of some DG are already covered by the concerned airworthiness requirements or flight operation regulations. These include specialised refrigeration units (which may contain liquefied gases), fire extinguishers and DG required for the propulsion of the means of transport (e.g. aviation fuel). To avoid duplication, a new group of DG, which will be exempted from the TI requirements, is introduced.

#### *References to other international standards*

10. Instead of maintaining detailed provisions about the methods and procedures to ascertain DG classification, the new TI make references to the “United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria”. The UN recommendations are by and large similar to the existing testing methods and procedures as stipulated in the current edition of the TI.

#### *Clarification of shippers’ responsibilities*

11. The new TI further clarify requirements in the marking and labelling of empty packaging and mixed packaging. For example, when two or more DG are packed within the same outer packaging, the latter must be labelled and marked as required for each DG. The identification, marking and labelling requirements also apply to empty packaging unless it has been properly cleaned to nullify any hazard. In previous editions of the TI, these requirements were not explicitly spelt out.

### **Proposed Amendments and Implementation**

12. To bring our regulations into line with the new TI, we have to amend the TI references in the AN(DG)R and DG(CAS)R. In this exercise, we will also remove certain provisions of the AN(DG)R which have already been included in the DG(CAS)R. These provisions mainly relate to shippers’ responsibilities in the transport of DG. The proposed amendments are currently in preparation and are expected to be gazetted in October,

subject to approval by the Chief Executive in Council. They will come into operation on the day when they are gazetted. This will enable Hong Kong to comply with the new international requirements as soon as possible.

13. The DG Office in the CAD is responsible for the enforcement of the two sets of Regulations. Its officers conduct regular and ad hoc inspections on concerned shippers, freight forwarders and airlines. During the inspections, officers will scrutinise the relevant records (e.g. DG documents and training records) and check whether DG consignments are properly packed and prepared. The DG Office also investigates reported cases of improper carriage or mishandling of DG. Since the new TI have not introduced any substantially new requirements, there will be no major change in the inspection work of the DG Office. Hence, we do not expect the proposed legislative amendments to have any financial or staffing implications.

### **Consultation**

14. ICAO had taken into account the views of the industry and relevant experts when preparing the new TI. In fact, the industry has already adopted some of the new requirements and made itself ready for the change by incorporating the new provisions into its handbook, viz the International Air Transport Association (IATA) Dangerous Goods Regulations. We do not expect the industry to face difficulty in following the new TI, which will represent the new international standards. Hong Kong's aviation partners are also updating their requirements to follow the new TI in this biennial exercise.

15. The Aviation Advisory Board, which includes representatives from shippers, airlines and freight forwarders, has been informed of our proposal and raised no objection.

### **Views Sought**

16. Members' views are invited on our proposal to amend the AN(DG)R and DG(CAS)R to follow the requirements of the new TI.