

# Advisory Circular

## EXEMPTIONS FOR THE CARRIAGE OF FORBIDDEN DANGEROUS GOODS BY AIR INTO AND OUT OF SINGAPORE

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1. **GENERAL.** Pursuant to paragraph 88B of the Air Navigation Order, the Director General of the Civil Aviation Authority of Singapore (CAAS) may, from time to time, issue advisory circulars (ACs) on any aspect of safety in civil aviation. This AC contains information about standards, practices and procedures acceptable to CAAS. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.
2. **PURPOSE.** This AC is to advise the industry of the conditions under which the Director-General of CAAS may, as provided for in paragraph 50H of the ANO (see Annex A), consider an exemption for the carriage of dangerous goods which are forbidden for transportation by air.
3. **APPLICABILITY.** This AC applies to shippers and operators involved in the transportation of dangerous goods into and out of Singapore seeking an exemption to transport dangerous goods which are forbidden for transport by air.
4. **CANCELLATION.** This is the first AC issued on this subject.
5. **EFFECTIVE DATE.** This AC is effective from 22 December 2011.
6. **REFERENCES.** ICAO Technical Instructions (ICAO TI) for the Safe Transport of Dangerous Goods by Air (including its Supplement) and paragraph 50H of the Air Navigation Order (ANO).
7. **EXEMPTION FOR CARRIAGE OF FORBIDDEN DANGEROUS GOODS.**
  - 7.1 ***Dangerous goods forbidden for transport by air under any circumstances.*** Part 1; 2.1 of the ICAO TI specifies that “*any article or substance which, as presented for transport, is liable to explode, dangerously react, produce a flame or dangerous evolution of heat or dangerous emission of toxic, corrosive or flammable gases or vapours under conditions normally encountered in transport must not be carried on aircraft under any circumstance.*” An exemption will not be considered for the carriage of any such article or substance by air.
  - 7.2 ***Dangerous goods forbidden for transport by air unless exempted.*** For an article or a substance whose carriage by air is forbidden, other than those described under paragraph 7.1, States may grant exemptions to enable its transportation by air. CAAS may consider the grant of an exemption for carriage of such dangerous goods on cargo aircraft. The following criteria may

be used to determine if an exemption would be considered:

a) **Extreme urgency.** In deciding whether the transport is urgent, CAAS may consider why it is important for a consignment to reach its destination quickly. Dangerous goods may need to be transported because of:

- (1) humanitarian relief;
- (2) environmental relief;
- (3) pestilence;
- (4) national or international security;
- (5) saving of life (e.g. rescue); and
- (6) limited availability at destination.

*Note: Applications based on commercial reasons only will not be viewed as urgent and carriage by other forms of transport should be considered.*

b) **When other forms of transport are inappropriate,** operators and /or shippers in applying for an exemption should submit to the CAAS a risk analysis which should include consideration for

- (1) *Duration of journey.* Transport by other forms may result in an unrealistic journey time and could affect the integrity of the dangerous goods;
- (2) *Infrastructure.* The availability of other forms of transport may be limited;
- (3) *Security.* The comprehensive security provisions of the air mode may reduce the possibility of unlawful interference (theft, piracy etc.);
- (4) *Routing.* Transport by air may result in a reduced risk of exposure of the public to the dangerous goods in the event of an incident or accident;
- (5) *Cost.* The cost of carriage by other forms of transport may be economically unreasonable. However, an application for exemption will not be considered based on cost alone.

c) **When full compliance with the ICAO TI is contrary to the public interest,** for example:

- (1) medical applications;
- (2) new technologies; and
- (3) enhancements in safety.

7.3 When seeking an exemption, the applicant should provide at least the following information:

- a) the reason, as described in paragraph 7.2 above, why it is essential the article or substance must be carried by air;
- b) the proposed safety control measures that will achieve a level of safety equivalent to that provided by the ICAO TI including a statement to that effect;
- c) the proposed proper shipping name, classification and UN number with full supporting technical data;
- d) the proposed packaging which will provide a level of safety at least equivalent to that which is needed in order to meet the applicable packing and package test requirements of the ICAO TI;

- e) quantity to be carried;
  - f) any special handling required and any special emergency response information;
  - g) name and address of shipper and consignee;
  - h) the airports of departure, transit and destination and the proposed dates of transport;
  - i) details of the operator including aircraft type, flight numbers, etc.; and
  - j) where applicable, copies of the relevant exemption documents issued by other authorities.
- 7.4 An application for an exemption should be submitted to CAAS at least 2 weeks before the planned flight. Justification is to be provided for an application submitted less than 2 weeks before the planned flight.
- 7.5 The applicant is reminded that he has to obtain the exemptions from the States concerned, and any necessary permits or approvals, before the carriage by air of such dangerous goods. With regards to exemptions, the "States concerned" are the States of Origin, Operator, transit, overflight and destination.

## **8. EQUIVALENT LEVEL OF SAFETY.**

- 8.1 The applicant will have to demonstrate to the CAAS that an overall level of safety in transport that is at least equivalent to the level of safety provided by the ICAO TI can be achieved. In determining an equivalent level of safety, the following should be conducted by the applicant:
- a) A review of the applicable regulatory provisions and instructions in the ICAO TI. This includes the identification of specific provisions and instructions that will not be met, thus requiring a determination that an equivalent level of safety will be achieved;
  - b) A review of any potential increased risk to safety or property that may result from deviating from the provisions or instructions and identification of the measures considered necessary or appropriate to address that risk. This should include substantiation with applicable analysis or an evaluation demonstrating that the proposed additional measures will achieve a level of safety that is at least equal to that required by the ICAO TI;
  - c) A thorough review and risk assessment to identify and evaluate potential risks and their mitigating factors in transport. This would include a risk safety analysis addressing failure modes and effects, a systems safety evaluation, and an explanation of the measures imposed to ensure each risk factor has been evaluated.
  - d) Where appropriate, risk mitigation factors and a safety analysis may be based on an analogy of the requirements in place for technologies which may pose similar risks.

## **9. DANGEROUS GOODS PERMIT.**

- 9.1 The exemption does not absolve the operator from the need to apply to CAAS for dangerous goods and/or munitions of war permits, where applicable. In addition to the conditions of any exemption granted, operators must comply with the ANO for the carriage of dangerous goods and/or munitions of war.
- 9.2 The dangerous goods and munitions of war permits issued by CAAS are not in any way regarded as an exemption granted to operators for the carriage of forbidden dangerous goods. An exemption is granted separately from but is in addition to the permits.

## **10. CONTACT PERSON AND INFORMATION.**

- 10.1 Applications for exemption should be made in writing to the following:

Civil Aviation Authority of Singapore  
 Airworthiness/ Flight Operations Division  
 Singapore Changi Airport Terminal 2

4<sup>th</sup> Storey North Finger Pier

#047-029

Singapore 819643

Attention: Deputy Head, Flight Operations (Dangerous Goods/ Cabin Safety)

10.2 Should you have any queries relating to this subject, please email to [CAAS\\_Dangerousgoods@caas.gov.sg](mailto:CAAS_Dangerousgoods@caas.gov.sg).