

Advisory Circular

ADMINISTRATIVE RELIEF FROM TECHNICAL INSTRUCTIONS COMPLIANCE

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GENERAL

Advisory Circulars (ACs) are issued by the Director-General of Civil Aviation (DGCA) from time to time to provide practical guidance or certainty in respect of the statutory requirements for aviation safety. ACs contain information about standards, practices and procedures acceptable to CAAS. An AC may be used, in accordance with section 11 of the Air Navigation Act 1966 (ANA), to demonstrate compliance with a statutory requirement. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

PURPOSE

This AC provides guidance on the conditions which the DGCA may, as provided for in Regulation 26 of the Air Navigation (92 – Carriage of Dangerous Goods) Regulations (ANR-92), consider the grant of administrative relief from compliance with the requirements of ICAO Technical Instructions (TI) for the Safe Transport of Dangerous Goods by Air to aid in the transport of dangerous goods that would otherwise be forbidden for transport under normal circumstances.

APPLICABILITY

This AC is applicable to:

- An AOC holder operating an aeroplane in accordance with Air Navigation (121 – Commercial Air Transport by Large Aeroplanes) Regulations 2018 (“ANR-121”);
- An AOC holder operating an aeroplane in accordance with Air Navigation (135 – Commercial Air Transport by Helicopters and Small Aeroplanes) Regulations 2018 (“ANR-135”);

- An operator of a Singapore registered aeroplane operated for the purpose of general aviation in accordance with Air Navigation (91 – General Operating Rules) Regulations 2018 (“ANR-91”);
- An operator of a foreign registered aircraft in Singapore in accordance with Air Navigation (91 – General Operating Rules) Regulations 2018 (“ANR-91”);
- Any agent of a foreign operator, Singapore operator or an operator of a Singapore registered aircraft operated for the purpose of general aviation;
- Any person that consigns or delivers dangerous goods for loading or carriage on any aircraft from Singapore; and
- Any public postal operator offering dangerous goods for transport in air mail.

RELATED REGULATIONS

This Advisory Circular relates specifically to Regulation 26 of ANR-92.

RELATED ADVISORY CIRCULARS

Nil

CANCELLATION

This is the first AC issued on this subject.

EFFECTIVE DATE

This AC is effective from 1 January 2023.

OTHER REFERENCES

- IATA Dangerous Goods Regulations Manual

1 INTRODUCTION

- 1.1 ICAO TI provides for exemptions from the requirements of the TI to be granted by States concerned¹ to aid in the transport of dangerous goods that would otherwise be forbidden to be transported by air under normal circumstances. In the context of ICAO Annex 18, *The Safe Transport of Dangerous Goods by Air*, and ICAO TI, exemptions are defined as an authorisation, other than an approval, granted by an appropriate national authority providing relief from the provisions of the TI.
- 1.2 Exemptions from the TI often involve dangerous goods having inherent hazards such that they present a higher safety risk to aircraft and its occupants when transported by air as compared with dangerous goods that are permitted to be transported under normal circumstances. To implement this provision, Regulation 26 or ANR-92 provides for the DGCA to grant administrative relief from having to comply with applicable requirements of ICAO TI in order to aid the transport by air of such forbidden dangerous goods when certain conditions are met.

2 APPLICABILITY AND INSTANCES WHERE ADMINISTRATIVE RELIEF FROM THE PROVISIONS OF ICAO TI MAY BE CONSIDERED

- 2.1 Any articles or substances, when transported by air, are 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 circumstances. CAAS will not consider granting administrative relief from the provisions of ICAO TI or an approval under Regulation 10 of ANR-92 to aid the transport of such articles or substances by air.
- 2.2 Other than those described in paragraph 2.1, for any dangerous goods articles of substances whose carriage by air is forbidden and which an approval under Regulation 10 of the ANR-92 is not applicable, CAAS may consider granting administrative relief from the provisions of the ICAO TI to aid in their transport by air. Such dangerous goods may be identified in Subsection 4.2 of the IATA Dangerous Goods Regulations Manual where column A specifies the UN number of the article or substance, Column G to L indicate that the article or substance is forbidden on both *passenger and cargo aircraft* and *cargo aircraft only* and where no provision for an approval exist in the special provisions or anywhere in the manual to aid in their transport by air (E.g. UN1038, *Ethylene, refrigerated liquid*).
- 2.3 Administrative relief may also be applicable to dangerous goods permitted to be transported by air under normal circumstances but are prohibited because one or more requirements of the ICAO TI could not be met and for which an approval under Regulation 10 of ANR-92 to aid in their transport by air is not applicable.
- 2.4 CAAS may consider the grant of administrative relief to a shipper, air operator or their agent from having to comply with one or more requirements of the ICAO TI to aid the transport such forbidden dangerous goods by air in the following circumstances:
 - 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 For the purpose of exemptions from the provisions of the TI, "States concerned" are the States of origin, operator, transit, overflight (where applicable) and destination.

- (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.** The following factors should be considered:

- (1) *Duration of journey.* Whether transport by other modes may result in an unrealistic journey time and that could affect the integrity of the dangerous goods;
- (2) *Infrastructure.* The availability of other modes that could also transport the dangerous goods to its destination;
- (3) *Security.* Whether the comprehensive security provisions of the air mode may reduce the possibility of unlawful interference (e.g. theft, piracy etc.);
- (4) *Routing.* Whether 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 that could not be achieved by other modes of transport;
- (5) *Cost.* The cost of carriage by other modes of transport may be economically unreasonable. However, an application for administrative relief from the provisions of ICAO TI will not be considered based on cost alone.

Air operators intending to transport forbidden dangerous goods aided by an administrative relief from the provisions of ICAO TI should work with the shipper or the shipper's agent(s) to assess the safety risk of transporting such dangerous goods on its aircraft taking into consideration the above factors which may support its assessment.

c. **When full compliance with the ICAO TI is contrary to the public interest.** Examples of this circumstance include:

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

3 APPLICATION FOR ADMINISTRATIVE RELIEF FROM THE PROVISIONS OF ICAO TI

3.1 Administrative relief may be granted by CAAS to either a shipper offering forbidden dangerous goods for transport by air or the air operator intending to transport the forbidden dangerous goods on its aircraft. When determining which organisation should make the application to CAAS, the shipper, air operator or its agents involved should consider if the provision(s) that the applicant is seeking relief from is a responsibility of the shipper or the air operator and whether Singapore is the State of origin, transit, destination or the operator. In general, administrative relief may be granted to

- a shipper in Singapore where Singapore is the State of origin;
- an air operator where Singapore is the State of transit or destination; or
- a Singapore air operator or an operator of a Singapore registered aircraft operated for the purpose of general aviation where Singapore is the State of the operator.

3.2 When seeking an administrative relief from the provisions of ICAO TI to aid in the transport of forbidden dangerous goods, the applicant should provide at least the following information in its application to CAAS:

- a. justify why it is necessary to transport the forbidden dangerous goods by air and which should at least be one of the instances as described in paragraph 2.3;
- b. identify all the specific requirements of the TI which will not be complied with when transporting the forbidden dangerous goods by air and which necessitates an administrative relief to aid in their transport by air;
- c. proposed safety control measures that the applicant will take and an explanation of why it believes that the implementation of these measures will achieve a level of safety equivalent to that provided for in the TI;
- d. a safety risk assessment² conducted by the intended air operator, in relation to the administrative relief being sort and for the purpose of transporting the forbidden dangerous goods (requiring an administrative relief) on its aircraft, which should demonstrate a level of safety equivalent to that provided for in the TI. Such an assessment should include
 - i. identification of hazards and their associated safety risk to aircraft operations;
 - ii. measures to mitigate the identified safety risks;
 - iii. assessment of the resultant risk of transporting the dangerous goods by air after considering the mitigating measures that it will implement; and
 - iv. any evidence of previous experiences that had demonstrated the achievement of a safe outcome;
- e. proposed proper shipping name, classification and UN number with full supporting technical data including material, product or pyrotechnic safety data sheets;

² If the applicant is a shipper or a shipper's agent, it should identify the air operator that is prepared to transport the dangerous goods on its aircraft should the administrative relief be granted by CAAS so that the air operator may conduct such an assessment for the planned operation.

- f. proposed packing method to be used which should follow the packing instructions as specified in the ICAO TI or its supplement where applicable. The packaging to be used should provide a level of safety at least equivalent to that which is needed to meet the requirements of the applicable packing instructions and related package performance test requirements of the TI;
 - g. quantity of dangerous goods intended to be transported by air;
 - h. any special handling required and any special emergency response information to be provided to the flight crew or ground staff;
 - i. name and address of the shipper and consignee;
 - j. the airports of departure, transit and destination and the proposed dates of transport to or from Singapore;
 - k. details of the operator including aircraft type, flight numbers, etc.;
 - l. copies of relevant exemption documents granted by other competent authorities where applicable; and
 - m. requested duration of the administrative relief which should not exceed two years.
- 3.3 An application for administrative relief should be submitted to CAAS at least 2 weeks prior to the planned flight. Justification should be provided for any application submitted less than 2 weeks prior to the planned flight.
- 3.4 Applicants should be aware that the transport of forbidden dangerous goods requiring exemptions from the requirements of ICAO TI from the States concerned is multilateral in nature and may only proceed when all the States involved have granted similar exemptions to the relevant entities in the transport chain to aid the transport of such goods by air. Consequently, the applicant should ensure that similar exemptions from the provisions of ICAO TI have been granted by the competent authorities of those States concerned, including any permits or approvals from relevant competent authorities in Singapore, prior to the transport of such dangerous goods on an aircraft.
- 3.5 Applications for administrative relief from the provisions of ICAO TI should be made in writing (and accompanied by supporting documents containing the information described in paragraph 3.2) to:

Director-General of Civil Aviation
Civil Aviation Authority of Singapore
Singapore Changi Airport
P.O. Box 1
Singapore 918141
Attention: Head (Dangerous Goods), Flight Standards Division.

4 DETERMINING AN EQUIVALENT LEVEL OF SAFETY PROVIDED BY ICAO TI

- 4.1 In its application to CAAS, the applicant will have to demonstrate 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 requirements and instructions that will not be met, thus requiring a determination that an equivalent level of safety needs to be achieved;
 - b. A review of any potential increased risk to safety or property that may result from deviating from the requirements or instructions of the TI 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. Safety risk assessment to be conducted by the air operator to identify and evaluate potential safety risks and their mitigating measures when transporting the forbidden dangerous goods on its aircraft. 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.

5 CAAS DANGEROUS GOODS PERMIT

- 5.1 When granted to a foreign air operator, an administrative relief does not absolve the operator from the need to apply to CAAS for a dangerous goods permit where applicable. In addition to the conditions of any administrative relief granted, operators must comply with other applicable regulations in the ANR-92 for the carriage of dangerous goods on its aircraft to and from Singapore.
- 5.2 To avoid doubt, the dangerous goods permit granted by CAAS to foreign air operators is for the purpose of transporting dangerous goods cargo on its aircraft to and from Singapore under normal circumstances. Such a permit is not regarded as an approval granted under Regulation 10 or an administrative relief granted under Regulation 26 of ANR-92 to transport forbidden dangerous goods under special circumstances.

6 ENQUIRIES

- 6.1 Should you have any queries regarding the contents of the AC, you may e-mail to us at CAAS_DangerousGoods@caas.gov.sg.