

	TANZANIA CIVIL AVIATION AUTHORITY DIRECTORATE OF SAFETY REGULATIONS FLIGHT OPERATIONS	Revision: 1 Advisory Circular
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1.0 GENERAL

1.1 PURPOSE

This Advisory Circular (AC) provides specific guidance to operators preparing for and completion of the TCAA certification process for the transport of dangerous goods by air.

1.3 BACKGROUND

- (a) ICAO Standards in Annex 18, Safe Transportation of Dangerous Goods by Air, require that the Authority must complete an assessment of an individual, organization or entity before issuing an authorization allowing these entities to engage in the process of transportation of dangerous goods by air.
- (b) In support of its international safety oversight obligations, Authority has safety legislation and guidance regarding the requirements that apply to the safe transportation of dangerous goods, including:
 - (i) CARS
 - (ii) Dangerous goods advisory circulars
 - (iii) The authority has established a certification process to ensure the completeness and standardization for the issuance of authorizations to transport dangerous goods by air.

1.4 APPLICABILITY

This AC is applicable to all operators and organizations involved in the process of transportation of dangerous goods by air in aircraft registered by the Authority and/or as the holder of an Air Operator Certificate.

1.5 RELATED REGULATIONS


The following regulations are directly applicable to the guidance contained in this advisory circular:

- The Civil Aviation (Air Operator Certification and Administration) Regulations, as amended.
- The Civil Aviation (Operation of Aircraft - Commercial Air Transport; General Aviation and Helicopters) Regulations, as amended

1.6 RELATED PUBLICATIONS

For further information on this topic, individuals, organizations and other entities are invited to consult the following publications:

- ICAO —Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI).
- Dangerous Goods Regulations Annex 18, Safe Transportation of Dangerous Goods by Air
- IATA Dangerous Goods Manual

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1.7 DEFINITIONS AND ACRONYMS

1.7.1 DEFINITIONS

The following definitions are used in this advisory circular:

- (a) **Dangerous goods.** Articles or substances which are capable of posing a hazard to health, safety, property or the environment when transported by air and which are classified according to the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air.
- (b) **Dangerous goods accident.** An occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property damage.
- (c) **Dangerous goods incident.** An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained.

Any occurrence relating to the transport of dangerous goods which seriously jeopardizes the aircraft or its occupants is also deemed to constitute a dangerous goods incident.

- (i) **Hazardous chemical** – Any chemical which has properties that present either physical or health hazards. Hazardous chemicals include both physical and health hazards.
- (ii) **Hazardous materials** – A substance or material which is capable of posing an unreasonable risk to health, safety and property when transported. (See also the definition of “dangerous goods.”)
- (iii) **Hazardous Occurrence:** accident or other occurrence arising in the course of or in connection with the employee’s work that has caused or is likely to cause injury to that employee or to any other person
- (iv) **Hazardous waste** – A discarded substance that because of its quantity, concentration, physical, chemical or infectious characteristics may cause or contribute to a serious illness or pose a substantial or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of.

1.7.2 ACRONYMS

The following acronyms are used in this manual:

AOC – Air Operator Certificate

COMAT – Company Materials

CARs – Civil Aviation Regulations

DG – Dangerous Goods

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DGC – Dangerous Goods Coordinator
DGR – IATA Dangerous Goods Regulations
IAEA – International Atomic Energy Agency.
IATA – International Air Transport Association
ICAO – International Civil Aviation Organization
ICAO-TI's – International Civil Aviation Organization Technical Instruction for the Safe Transport of Dangerous Goods by Air.
NOTOC – Notification to the Captain

2.0 OPERATIONAL CERTIFICATION

2.1 PHASE ONE: PRE-APPLICATION

2.1.1 Initial inquiries

- (a) Initial enquiries about approval of transportation of dangerous goods by air from individuals or organisations will be in writing or in the form of meetings with the Authority personnel.
- (b) Upon initial contact, the Authority inspection personnel should provide the applicant with a FORM. Dangerous Goods Transport by Air Approval - Application Form and Advisory Circulars. The applicant will also be given an overview on the approval process and the requirements of the Authority.

2.1.2 Pre-Application Meeting

The team will meet with the applicant to brief them in detail on the five phase dangerous goods approval process, technical and personnel requirements and implementation procedures at each phase.

2.1.3 Pre-Application Meeting Contents

The following should be accomplished during the pre-application meeting

- (a) Verification of information provided in the application Form
- (b) Detailed overview of the five phase approval process
- (c) Discuss regulations applicable to Dangerous Goods transportation by air
- (d) Manuals/Documents required as part of the formal application package

The CPM will then prepare minutes of the meeting that will be signed by the CPM and the AOC Applicant Dangerous Goods Coordinator.

The Pre application phase completion date is the date when the pre application meeting has been held and the Applicant has been briefed appropriately on the formal application preparation. The phase will be closed with a letter to the applicant.

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2.2 PHASE TWO: FORMAL APPLICATION

2.2.1 Handling of the Formal Application

The purpose of the formal application phase is to ensure that the AOC applicant has submitted the Dangerous Goods formal application attachments and to conduct a review and establish a common understanding on the remaining process for the DG certification.

Formal application attachments

The formal application attachments are;

- (a) Cover letter for the formal application. The cover letter should include the following information
 - (i) Full and official name
 - (ii) Mailing Address
 - (iii) Primary Operating Location
 - (iv) Key Management Personnel Names
- (b) Form AC-OPS034 Dangerous Goods and Dangerous Goods by Air Approval job aid and schedule of events
- (c) AOC applicant/ Holder Dangerous Goods Coordinator Bio data
- (d) AOC Manuals/Documents
 - (i) Operations Manual Part A
 - (ii) Operations Manual Part D AOC Applicant or AOC Handling Agent
 - (iii) Cabin Crew Manual
 - (iv) Ground Operations Procedures Manual
 - (v) Dangerous Goods Manual
 - (vi) Any other manuals addressing Dangerous Goods
 - (vii) Dangerous Goods Acceptance Checklists
 - (viii) High Consequence Dangerous Goods security plan
 - (ix) Current edition of ICAO technical instructions/IATA Dangerous Goods regulation
 - (x) Arrangement/Contract for ground handling operations-cargo handling operations
 - (xi) Arrangement/contracts for dangerous goods training.

2.2.2 Formal Application Review Meeting

A formal application meeting will be held with the Applicant where the formal application package will be received by the TCAA and a cursory review conducted. This meeting must include the Dangerous Goods Coordinator, quality and safety post holders. The TCAA team should ensure all required documents/manuals are submitted and complete.

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The CPM will discuss and resolve any omissions, deficiencies, or open questions concerning the formal application package. During the meeting the team should clarify any issue or item that is not understood. The Applicant will have an opportunity to revise minor deficiencies noted during the initial review and formal meeting. Minutes of the meeting will be taken and the minutes signed by the CPM and the Applicants DG coordinator.

The Certification Project Manager (CPM) will not formally accept an application during the meeting. The Applicant will be notified by letter within 5 business days after the Formal Application Meeting that the formal application is accepted or rejected.

If the formal application is not accepted, the CPM will return it to the applicant with a written explanation of the reasons for the return.

TCAA acceptance of a formal application does not constitute approval or acceptance of individual attachments. The certification team will thoroughly evaluate the formal application package during Phase III Document Evaluation.

The formal application phase will be closed with the letter accepting the formal application package.

2.3 PHASE THREE: DOCUMENT EVALUATION

An in depth review of the contents of each submitted document for regulatory compliance that was submitted as part of the formal application package shall be carried out using the appropriate dangerous goods approval checklists.

2.3.1 Use all Available References

The applicant should use the following documents during the development of its formal application submission:

- (a) TCARS;
- (b) TCAA Dangerous Goods Advisory Circulars
- (c) ICAO Technical Instructions;
- (d) IATA Dangerous Goods Regulations; and
- (e) Other relevant published international safety practices.

2.3.2 Evaluation Checklist

- (a) The most accurate indicator of the completeness of the dangerous goods certification is; a complete FORM: AC- AC-OPS034
- (b) This checklist will be continually updated during this process to reflect the accurate or revised manual procedures.

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- (c) The checklist will be inserted in the Completed Certification Report binder as one of the primary “proofs” that, at the time of certification, the applicant was in conformance with the minimum standards of the applicable regulation.

2.3.3 Organization

- (a) Evaluation of the applicant’s organization and key personnel associated with the proposed dangerous goods will occur early in this phase.
- (b) If TCAA has any objections or reservations regarding the proposed organization or key personnel, these will be shared with the applicant as soon as possible.
- (c) This urgency will also apply to the any service providers proposed for use in the dangerous goods process. The contractual arrangements with these personnel and the assigned responsibilities must be understandable to TCAA.

2.3.4 Manuals

- (a) The TCAA will evaluation the DG Operations Manual through comparisons of the proposed information, policy and procedure with the—
 - (i) ICAO Technical Instructions
 - (ii) Advisory circulars and other relevant manuals.
- (b) If the applicant has included accurate DG legislation references in the text of the manual this comparison process can be accelerated.
- (c) The TCAA will also evaluate the applicant’s arrangements for ensuring that all persons involved in DG preparation or acceptance have direct and immediate access to the DG reference manuals.

2.3.5 Transport Policies

- (a) The applicant must have very specific policies regarding the classes and quantities of dangerous goods that will be transported or forbidden.
These policies should be evaluated with respect to the ICAO-TI and the applicant’s apparent capabilities
- (b) The applicant should have specific guidance to the flight crews regarding their transport of articles that may be considered to be dangerous goods.
- (c) This is also true in passenger handling situations, the persons who perform ticketing, gate and cabin duties must be knowledgeable of articles that may or may not be carried on board the aircraft.

2.3.6 Preparation and Acceptance

- (a) The persons involved in the preparation or acceptance of dangerous goods for transport by air are the most critical performers in this process.
- (b) The instructions and guidance that are provided to them must be very complete and accurate.

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2.3.7 Storage, Handling and Segregation

- (a) The storage, handling and segregation of the dangerous goods will be performed at almost every juncture in the transport process.
- (b) Depending on the classes, divisions and subsidiary risks of the dangerous goods proposed to be transported, these procedures can be critical. They must adhere closely to the ICAO-TI requirements.

2.3.8 Incident Procedures

- (a) All goods involved in transportation are subject to damage depending on the manner in which they are handled.
- (b) Damage and possible leakage in the transportation of some dangerous goods can have catastrophic consequences.
- (c) Proper reporting of these incidents is a TCARs requirement.

2.3.9 Loading and Transport

- (a) The actual loading of the aircraft is also a critical point in the transport of dangerous goods by air. The location, segregation and securing of these articles, containers or overpacks must be done by knowledgeable persons using ICAO Technical instructions procedures.
- (b) The provision of the information regarding the dangerous goods classes and locations will ensure that the flight crews are prepared to make correct decisions if incident occurs in flight. This document is also made available to ground personnel including responders. It is critical to safety.

2.3.10 Forms and Records


- (a) The applicant will be using forms, records and other documents to ensure conformance with the applicable requirements.
- (b) These documents must be easy to understand and use.

2.3.11 Emergency Provisions

- (a) Emergency procedures that provide clear instructions to the participants in the process contribute to effective handling of incidents before they become accidents.
- (b) The emergency procedures will be carefully checked using the reference and aircraft specific documents.

2.3.12 Training

- (a) Dangerous goods training is stressed as the most effective factor in safe transport by air.
- (b) The requirements provided in the ICAO-TI will provide for a comprehensive training program.

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- (c) The submitted training program and curriculums include all required training subjects and exercises will be thoroughly reviewed to meet the training objectives.

2.3.13 Quality Assurance

- (a) Most applicants do not perform all aspects of the dangerous goods process using company personnel but opt to make use of handling agents/ outsourced services.
- (b) This is an area where the set-up of good quality audits by the operator will be vital to the continued conformance to the minimum standards for safe transport of dangerous goods.

2.4 PHASE FOUR: INSPECTION AND DEMONSTRATION

The Certification team will provide the applicant with the demonstration and inspections required for the DG approval and will ask the Applicant to provide a demonstration and inspections schedule, the team members will review the proposed schedule to see whether it is workable. The appropriate checklists will be used to conduct the follow inspections to ensure that the Applicant can comply with the regulations and that the procedures are in accordance with the manuals and documents evaluated.

The following inspections will be carried out:

- a) Organization and infrastructure inspection
- b) Dangerous Goods training
- c) Dangerous Goods Instructor assessment to include training material and equipment
- d) Ground Operations Inspection
- e) Dangerous Goods Inspection

2.4.1 Training Inspections

- (a) The participants will need to receive the qualifying training early in the process.
- (b) This may be done in a centralized class or will be done in several non-concurrent locations depending on the work functions of the participants.
- (c) The TCAA will conduct inspections of the training as necessary to validate the completeness and quality of the training related to the specific curriculum and objectives.
- (d) The performance of the instructors used in the DG training must be satisfactory as per their relevant operations manual.

2.4.2 Preparatory Inspections

- (a) TCAA will conduct inspections at the facilities of the operator and service providers to ensure that the necessary infrastructure exists.
- (b) These inspections will include:
 - (i) Facilities, including signage and equipment necessary for movement of DG;

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- (ii) Correct and sufficient copies of manuals necessary to the DG process;
- (iii) Adequacy of the supplies necessary to the DG process; and
- (iv) Adequacy for handling and storage of the classes of DG to be shipped.

2.4.3 Shipping Inspections

TCAA Inspectors will be present to monitor the actual:

- (a) Preparation and packaging of the first dangerous goods to be shipped as cargo on the required validation flight.
- (b) Acceptance of the dangerous goods packages by the operator or agent;
- (c) Completion of the shipping documents that accompany the dangerous goods package; and
- (d) Performance of the personnel at these critical steps in the dangerous goods process.

2.4.3 Operational Inspections

TCAA personnel will be present to monitor the actual:

- (a) Loading (and subsequent unloading) of the aircraft;
- (b) Completion of the loading documents related to transport of DG by air, including the NOTOC;
- (c) Flight crew procedures relative to the presence of dangerous goods, understanding of the NOTOC, possible dangers and emergency procedures.

2.5 PHASE FIVE: CERTIFICATION

When the applicant has met all the regulatory requirements to hold a Dangerous Goods approval the assigned CPM will call for a final certification meeting to compile the documents required for the DG approval issuance and the certification report. The certification report, recommendation for DG approval and the appropriately amended operations specifications will then be submitted to the Manager Flight Operations for review and his action.

2.5.1 Amendment of Operations Specifications

For AOC holders, the operations specifications will be amended to show the authorization for transportation of dangerous goods by air.

3.0 AVAILABLE FOR CONSULTATION

The following documents must be available at the applicant's facilities for consultation—

- (a) ICAO Technical Instructions and/or;
- (b) IATA Dangerous Goods Regulation



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Director Safety Regulation